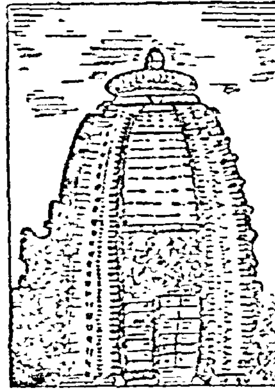
[BHĀRATĪYA VASTU-ŚĀSTRA SERIES, VOL. VIII]

VĀSTU-ŚĀSTRA

VOL. I

HINDU SCIENCE OF ARCHITECTURE

(Engineering, Town-Planning, Civil Architecture, Palace-Architecture, Temple-Architecture and an anthology of Vāstu-lakṣaṇas)



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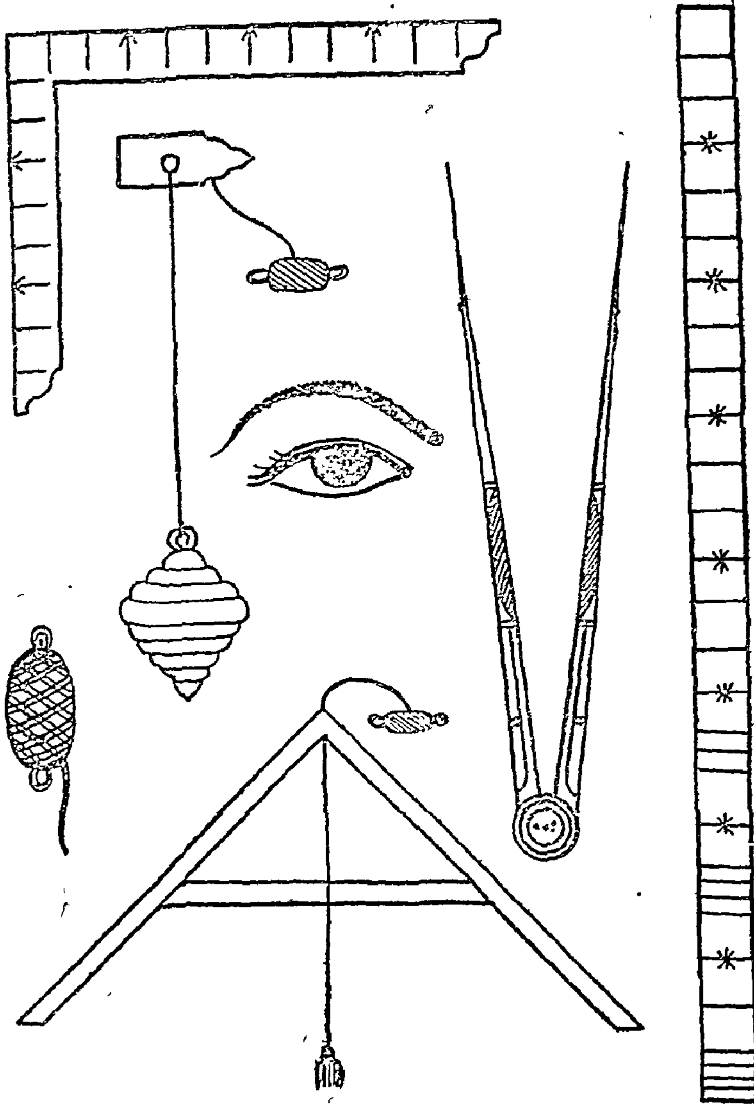
Dedicated

to

Lord Siva

Whose monumental temples in Indian architectural heritage have formed the most inspiring fascination to the writer and whose towering edifices at Ellura, Bhuvaneśvara, Khajuraho and other renowned temple-sites are the crowning achievements of the Indian artisans and their gurus—the Sthapatis and the Sthāpakas.

SŪTRĀṢṬAKAM



सूत्राष्टकं दृष्टिनृहस्तमौञ्जं कार्पासकं स्यादवलम्बसञ्ज्ञम् ।
काष्ठं च सृष्ट्याख्यमतो विलेख्यमित्यष्टसूत्राणि वदन्ति तज्ज्ञाः ॥

FOREWORD

Dr. Shukla desired me to write a foreword to his Vāstu-Śāstra Volume I, Hindu Science of Architecture, with special reference to Bhoja's Samarāṅgaṇa-Sūtradhāra. I naturally hesitated to accept his suggestion as I have no deep acquaintance with the subject so ably dealt with by Dr. Shukla in this Volume. I am, however, greatly interested in Vāstu-Śāstra and since this book deals with that science in a scientific manner, I have ventured to write a few words by way of foreword. We are reluctant to believe in Sanskrit Literature and lore anything other than Hymns, Sūtras, Philosophy, Religion, Mythology, Grammar, Poetry and Drama. As a matter of fact Sanskrit lore is a rich store-house of technical sciences and arts but no systematic presentation of the same has been done so far. From this point of view Dr. Shukla's dedicated efforts in this realm of our ancient wisdom is a matter of great satisfaction. He has published more than half a dozen works on the subject of the Hindu canons of architecture, sculpture (iconography) and painting. These are understood by Sanskrit scholars like Shukla as constituting Vāstuśāstra, Śilpaśāstra and Citraśāstra. Two volumes on this subject are indeed of special interest and should be of special interest even to laymen. These two volumes are based on his Ph. D. and D.Litt. Theses and are published with the grants received from the University Grants Commission which consider these works as of high merit and high research scholarship. The perusal of expert opinions expressed by such eminent Indian scholars like Mahamahopadhyaya Dr. Mirashi, Dr. J. N. Banerjea and Prof. C. D. Chatterjee will show how scholarly these works are I should think that Dr. Shukla deserves still greater credit and greater praise not only for the work done but for his high devotion to Sanskrit research in this branch of Indology. Probably he is the first earnest research scholar in this field.

I find this work to be an extended study of Dr. Shukla's Ph. D. Thesis "A study of Bhoja's Samarāṅgaṇa-Sūtradhāra, a treatise on the science of Architecture". The Samarāṅgaṇa-Sūtradhāra of King Bhojadeva is a datable work and in the opinion of Dr. Shukla it is the most authoritative and standard medieval compendium of Hindu canons of architecture, sculpture and painting Undoubtedly it is a scientific and systematic study by Dr. Shukla who is really a pioneer in this branch of Sanskrit lore. The value of the work is enhanced as critical study of five other important texts, namely, Mānasāra, Mayamata, Śilparatna, Aparājitapracchā and Viśvakarma-Vāstuśāstra is included. It is not my intention nor am I competent also to make any detailed comments on the work presented to the reader in this volume. I have no doubt scholars and experts will critically evaluate the same. I think I ought to observe that some of the themes have been elucidated by Dr. Shukla in a right, modern and scientific manner. These are fundamental canons of Hindu Architecture like

site-planning what the ancient had termed Vāstupada-vinyāsa ; the theory of orientation what is called Diṅnirṇaya and the importance of the rythm in the structures, the Chandas etc. A perusal of the code of masonry, its virtues and defects and the demarcation of the three broad divisions of architecture, the civil or secular architecture, the aristocratic architecture or palace-architecture and the devotional or religious architecture, will convincingly show that the Hindus had developed all the three kinds of architecture in ancient times.

From the stand-point of pure research the preparation of voluminous anthologies of Vāstu-lakṣaṇas, Pratimā-lakṣaṇas and Citra-lakṣaṇas by Dr. Shukla is indeed a contribution of no small importance. It is altogether a new presentation in the contemporary Sanskrit scholarship and research and I am sure even the more orthodox Sanskrit scholars would appreciate the new research technique as initiated and enunciated by Dr. Shukla. In this volume, it appears that Dr Shukla has fully used all that has been said or written about the subject concerned and he has acknowledged it himself. Both these works, namely Vāstuśāstra Vol. I and Vāstuśāstra Vol. II represent a lucid survey of the whole field of this technical branch of Sanskrit lore. Dr. J. N. Banerjea has stated that Dr. Shukla should have included the illustrations from amongst the Indian monuments which are really our rich architectural heritage. However, I hope that Dr. Shukla will take this into consideration when he publishes his volume no. III which, I understand, is going to be the concluding volume to complete the survey not only on Śāstric lines but on objective lines as well.

I have no doubt that the public, both expert and lay, will find this work of great value. Modern engineers, in particular, will find this volume a source of inspiration, something that will provoke thought and may possibly bring some contribution to current thinking on the subject. Such works shall take a long time to be appreciated and longer time still for being re-printed. From this point of view, it is necessary that the first edition should be excellently printed and excellently edited. Study of sanskrit is becoming more popular after independence but I feel the tradition of devoted and dedicated work, particularly, in Sanskrit research, is not well-sustained. A scientific and sy tematic outlook in the interpretation of Sanskrit lore deserves to be encouraged. Dr. Shukla's research work, I am sure, will inspire younger generation to undertake such work. In conclusion I hope that Dr. Shukla completes all the ten volumes of this particular branch of Indology as he has contemplated.

I wish him success in this.

N. V. Gadgil

RAJ BHAWAN, CHANDIGARH,
15th March, 1961.

Governor, Punjab.

INTRODUCTION

This Vāstu-Śāstra Vol. I—Hindu Canons of Engineering and Architecture, though first in the series of my research publications in English is seeing the light of the day after the Vāstu Śāstra Vol. II. —Hindu Canons of Iconography and Painting, had already been presented to the scholarly world more than a year back. Both these Volumes have for their nuclei my Doctoral Theses—Ph. D. (Vol. I) and D.Litt. (Vol. II). In this way this Volume may be said to have come out after a long interval.

A study of Bhoja's Samarāṅgaṇa-Sūtradhāra—a treatise on the science of architecture was submitted as my Ph. D. thesis some six years back. I was very much encouraged by the glowing tributes to this thesis, being acclaimed as a pioneer work—vide the reports of the examiners, appended at the end of this introduction. I therefore, set for myself to extend the study from a single text to at least half a dozen representative texts like Viśvakarma-prakāśa, Aparājita-prcchā, Mānasāra, Mayamata-and Śilparatna. Naturally this very ambitious undertaking needed some more concentrated time, the availability of which has been a very distant hope for the last so many years as I have been busy not only with my D. Litt. researches, but also with my research publications in Hindi as well, with the subsidies received from the U. P. Government. Meanwhile that illustrious sociologist economist and indologist Dr. R. K. Mukerjee, the then (1954-56) Vice-Chanceller of Lucknow University, took great fancy in my theses on account of their high merit and higher tributes and recommended their publications to the U. G. C. which sanctioned a grant of Rs.6000 for the publication of my theses. Prof. Iyer the next Vice-Chancellor also agreed to recommend for some mere help towards the completion of work. Hence a further subsidy of Rs. 4000 enabled me to undertake the publication of this Volume also. Both these Volumes in a way may be said to complete the grand edifice of Vāstu-śāstra, which is not only the science of architectnre, engineering but also that of sculpture and painting. Accordingly all these three broad divisions of Vāstu Śāstra, namely Vāstu, Śilpa and Citra, have been surveyed in both these Volumes. The Vāstu i.e. architecture being the subject matter of the first Volume and Śilpa and Citra that of the second. Further again Vāstu in its wider application has at least five principal branches namely Engineering, Town-planning, Secular or Civil architecture (residential

houses for common middle class people), Palace-architecture and Temple-architecture. It is in accordance with these broad topics of Vāstu Śāstra (in its narrower denotation and connotation) that this Volume has been divided into five principal parts namely Introductory, Town-planning, House-architecture, Palace Architecture and Temple-architecture.

It is needless to say any thing in detail in regard to these parts as every part has been preceded by some introductory remarks and the readers are referred to the introductory chapters of these parts. Here I am more concerned to introduce the broad subject of this Volume. As already pointed out, this Volume is an extended study of my Ph D. Thesis–A Study of Bhoja's Samarāṅgaṇa's Sūtradhāra. I am really happy to say that this very elaborate, complete and authoritative medieval manual of Vāstu-Śāstra has-now become a household name among the students of architecture—vide my so many publications centering round this magnificent work written by that illustrious king whose name is a household name among Indians. This work really fascinated me so much that I simply overdid it and it is under duress that I am writing this introduction—vide my prolonged ailments consequent upon too much exhausting myself during the last ten years of my researches centering round the SamarāṅgaṇaSūtradhāra of king Bhojadeva of Dhārā. It is really very difficult to study such a technical work and to present a scientific and systemetic exposition of such a technical subject, more so when there was no previous guidance. A good many scholars, notably Indians (vide the presidential addresses of technical-sciences-section of A. I. O. Conference particularly of Dr. Moti Chand) have talked very lightly of these ancient manuals of Hindu Science of Architecture. This gave me a great impetus to refute this very low estimation by the Indian scholars themselves. I cannot claim to be the first interpreter of this ancient wisdom. Ramraz and Dr. P. K. Acharya, Dr. Bhattacharya, Prof. Kramrisch and others have preceded me no doubt, but without any self-praise, I must say that my approach is altogether a new approach to this hitherto uninvestigated branch of Indology. Ramraz only summarized the contents of Mānasāra, Dr Acharya's contribution confine to the edition, translation and dictionary of Mānasāra and Dr. Bhattacharya's pre-occupation with the historical genesis made him too much absorbed in non-scientific matters. Nevertheless his approach to some of the architectural problems may be said to be pioneering. The domain of Prof. Kramrisch and Dr. Mallaya were limited in the sense that both these scholars have expounded the canons of Temple-architecture only, though Prof. Kramrisch's Hindu Temple is a land mark in contemporary studies in Temple-architecture and we

all owe a debt of gratitude to this gifted and eminent writer who had the credit to open an altogether new vista of vision in explaining the depth of the Hindu Temple. As regards myself my means and resources have been too meagre to cope with very highly ambitious and zealous undertaking and despite these shortcomings my diety has enabled me to complete the high edifice of my Vāstu-Śāstra Research in as many as six (four Hindi and two English) Volumes. I simply do not know how could I do it. In my youthful zeal and magnetic pursuit I simply could not foresee the very hard undertaking. I had to pursue this undertaking in a dedicated manner and the hard labour of these full six years has simply crippled me and I feel exhausted and thus my research project of ten to fourteen volumes seems to be a distant hope. Situated as we are we have no encouragement, nor are there avenues for our labour to be fully recognised. We have not yet developed detached tradition where personal ambition must be put down in the consideration of merit and scholarship.

With this little digression let me now come to my introduction to this volume, in broad outlines. As already indicated that my Ph.D. thesis, 'A Study of Bhoja's Samarāṅgaṇa-Sūtradhāra'—a treatise on Hindu Science of Architecture has formed the nucleus of this Volume. I really wanted to extend my presentation in the light of at least six representative texts but due to paucity of space and patience and necessary resources, I could extend only the first part to my satisfaction. To some extent a good deal has been added in practically all parts. The antiquity of town-planning, the rise of Indian towns, villages etc. (vide part II), recast of palace architecture along with its accessory buildings and pleasure-devices and the cognate, state buildings are altogether a new introduction. Similarly an outline history of Hindu Temple in its different styles is also a fulfilment of characteristic design to co-relate the manuals and the monuments both.

This is so far as the extension of the previous work is concerned. An altogether new approach in the contemporary studies on Hindu Architecture is the preparation of Vāstulakṣaṇa having culled the material from the representative text books. This is a poineering attempt. We did have Pratimālakṣaṇa, but so far we never had Vāstulakṣaṇa. It is a parallel and corresponding approach between the study and sources. Like my Pratimālakṣaṇa–vide Vāstu-Śāstra Volume II—Hindu Cannons of Iconography and Painting, this Vāstulakṣaṇa has also been prepared under suitable scientific headings and it now reads like an independent treatise on the Vāstu-Śāstra. My only disappointment is that I could not

CONTENTS

PART III

EXPERT OPINIONS

Ph.D. Thesis:

Extracts from the report of Dr. J. N. Banerjea, M. A., Ph. D., F.A.S., Charmichael Professor of Ancient Indian History and Culture, Calcutta University, Calcutta.

Scholars intending to go in for advanced studies should be encouraged to take up such subjects as require not only the basic equipment of a good knowledge of Sanskrit, but also a sound idea about the technicalities of the artistic and architectural remains of ancient India. Shri Shukla is an eminent Sanskritist, and he possesses a thorough idea about the nature and quality of the architecture of the ancient Indian people. He is thus eminently fit for scientific appraisal of such a highly technical work like the Samarangana-Sutradhara of king Bhoja. The treatise is a very elaborate work on the laṭā school of Indian Architecture. It has not so far been systematically and scientifically studied, though some Purvacharyas had made occasional use of it. Shri Shukla's work is, thus, a sort of pioneer work, and it deserves full appreciation and praise for breaking new grounds.

Bhoja's monumental treatise, though dealing pre-eminently with the science of Indian architecture, does not fail to treat such allied topics as sculpture (iconography) and painting. The former technically known as, Vastuvidya comprises within it the other two branches of the Silpasastras, which can in a way be regarded as its adjuncts. Many of the recognized and authoritative works on the Silpasastra seldom omit treatment of these allied topics while mainly dealing with the architectural science. This work also deals with various other topics like 'Town-planning', 'The Construction of Machines' *(Yantra-ghatana)*. 'The Construction of Household Furniture —Cots and Couches' *(Sayanasana)*, etc.

It is thus a much more comprehensive work than many others of a similar nature, and a critical and scientific study of it has long been a desideratum.

Shri Shukla's thesis is divided into eight parts, the last two of which deal with iconography as associated with sculpture and painting. The first six parts of it treat of such highly interesting topics as 'Town Planning', 'House Architecture', 'Temple Architecture' 'The Construction of Machines', 'The Articles of Household Furniture' etc., with the usual introductory chapters in the beginning and the Appendices in the end. In the last part (VIII)—Appendices), the author includes charts on site plans, road plans and plan of a palace

as well as extensive quotations from the text of Samarangana-Sutradhara, subjectwise. In page 14 of his introductory chapter, he has tried to rearrange the chapters of the text (first 48 ones) in a coherent manner, the arrangement of which in the edited text seems to have been faulty. In all this task he has seldom failed to make full use of the contributions of previous authors on Indian architecture and allied subjects in a critical manner, and to substantiate his own conclusions on the basis of proper evaluation of comprehensive data. The author's own contribution has thus been of a very high order, and the award of the Ph.D. degree is the least credit that can be given to him for this type of scientific and conscientious labour.

D.Litt. Thesis:

Extracts from the Reports of Dr. Shukla's D. Litt. Thesis—"Foundations and Canons of Hindu Iconography."

Mahamahopadhyaya—Dr. V. V. Mirashi : This brief account of the contents of the four books submitted by the author will show how comprehensively he has dealt with the subjects of iconography and painting. These subjects have, indeed, already attracted some eminent scholars who have made notable contributions to our knowledge about them. The merit of Shri Shukla's work lies in this that he has tapped Sanskrit sources exhaustively. This will be seen from the list of fifty-five works which he has appended at the end of his Pratima-Lakshanam. He has also drawn upon the previous works of several authors such as R. C. Bhandarkar, P. V. Kane, Stella Kramrisch, P. C. Brown, Raghavan, Sivaramamurti etc. He has analysed his material thoroughly and has collected all available information under several heads. We have thus in one place all available material bearing on iconography and painting in the existing Silpasastras.........Many of the works which treat of iconography and painting have come down to us in a corrupt form. Again, they abound in technical terms, the meaning of some of which is now far from certain. Dr. Shukla's good knowledge of Sanskrit has enabled him to restore original readings in some cases. He has also succeeded in giving plausible explanations of several judicious uses of the words of previous writers and has exercised independent judgment in several places. All these books testify to the immense labour which he has spent in collecting material and the ingenuity he has displayed in interpreting it. The author has taken infinite pains in writing these works which are packed with information about iconography and painting. He has considerably advanced our knowledge of these subjects by his devoted labours. I heartily recommend him for the award of the D.Litt. degree of the Lucknow University, without further examination.

Dr. J. N. Banerjea—Dr. D. N. Shukla, M. A., Ph. D., at present of the Gorakhpur University, earned the Ph. D. Degree of the University of Lucknow sometime ago by his well-written thesis on Bhoja's Samarangana-Sutradhara, a mediaeval Sanskrit Anthology throwing a flood of light on architecture (Vastuvidya and other allied arts of ancient India). The works now submitted by him for the D. Litt degree of the same University are on Hindu Iconography, Hindu Canons of Painting, Pratima Vijnana and Pratima Lakshanam, the first two being in English and the last two being written in Hindi. These works, all printed, contain valuable information about the iconographic and pictorial art as practised by the Silpis of ancient India. Numerous are the source materials which have been culled by him from a wide range of Sanskrit texts of a varied character—Vedic, Epic and Puranic, technical literature like the Silpasastras, and works, in verse and prose of eminent authors like Kalidasa and others. Relevant text in Prakrit and Pali have also been utilised by him in throwing light on different aspects of the theme in question. He has also made sparing use of the iconographic and pictorial remains of ancient and mediaeval India to illustrate his point, and it would have been better if such use had been more exhaustive. Some well-chosen and well reproduced illustrations of relevent specimens would have enhanced the quality of his researches. It should be observed, however, to his credit, that he has seldom failed to refer to the many authoritative works on ancient and mediaeval Indian painting and iconography which contain numerous illustrations. His appraisal of the views of respective scholars about the different problems raised by him has been critical and scholarly. Attention may only be drawn to p.201 of his Hindi book on Pratima Vijnana, where he rightly pointed out that my comment on the list of different materials for image-making as given in the Samarangana-Sutradhara was based on a faulty reading of the text, and the word lekhya in the passage should really be lepya. He has collected numerous iconographic texts containing the descriptions of different images from a large number of authoritative original works in his Hindi work on Pratimalakshanam, which will be of great use to research scholars in this field of Indology. His two works on Hindu Canons of Painting and Iconography (Introductory and Part I portions only) in English also contain much useful matter, and I wish he will be able to complete the latter work in no distant future. I should like to suggest that he makes full use of the representative icons belonging to the different creeds which have been found in the Uttar Pradesh, and their number, variety and workmanship are certainly great. I need not prolong my report any

further. I hereby recommend the award of the D. Litt. Degree of the University of Lucknow to Dr. D. N. Shukla for his meritorious publications. His works in the Rashtrabhasha have enriched the technical branch of the Hindi literature.

Prof C. D. Chatterji—Although eminent scholars like Sri Gopi Nath Rao, Dr. J. N. Banerjea, Sri N. K. Bhattasali, Dr. B. T. Bhattacharyya, and Sri B. Bhattacharyya, have made valuable contributions to the study of Brahmanical, Buddhist, and Jaina Iconography, a critical and scientific study of the subject as a whole, particularly on the basis of available literary data as contained in different *Agamas, Puranas* and *Silpa-Sastras,* was a long-felt desideratum. Again, the study of Hindu Iconography in the light of the canons of paintings was never attempted before by any scholar, whether Indian or foreign. It was, therefore, felt by me as well as by the supplicant that a detailed study of the canons as preserved in Sanskrit literature, should also be made so as to make the dissertation as thorough, comprehensive, and useful as possible. Keeping all these facts in view and bearing in mind the furture needs of Indian Archaeology, I suggested to the supplicant the scheme on the basis of which his thesis has been written.

I am glad to find that Dr. Shukla has admirably executed his task. His thesis is indeed a valuable contribution to the study of Hindu Iconography, which has considerably advanced our knowledge of that subject in some of its aspects. One may differ from him in respect of a few minor points; but it should be remembered that he has strictly followed the orthodox iconic traditions as preserved in Sanskrit literature, and has substantiated them as far as possible by referring to their best and typical examples, whether executed by sculptors or by painters.

Dr. Shukla's works on *Pratima-vijnan, Pratima-lakshana,* and *Chitra Lakshana* (Hindu Canons of Painting), which comprise his D.Litt. thesis and which form parts of the Series entitled *Bharatiya-Vastusastra,* which has been instituted by him, will be, as I do believe, welcomed by all Indologist, since the treatment of these subjects is unprecedented, scientific, and scholarly. I, therefore, strongly recommend that the Degree of the Doctor of Literature be awarded to him on the basis of these published works on Hindu Iconography, which I sincerely believe, will not only bring credit to him but also to the University associated with his researches.

ACKNOWLEDGEMENT

The credit of the publication of both these Volumes goes to the U.G.C. un er the renowned chairmanship of Sri C. D. Deshmukh—vide its grant of Rs. 10,000.

BHARATĪYA VĀSTU-ŚĀSTRA SERIES

Vol. I Bhāratīya Vāstu-Śāstra—Vāstu-vidyā evam Pura-niveśa.

,, II Bhavana-niveśa.

,, III Prāsāda-niveśa.

,, IV Pratimā-Vijñāna (Pt. I).
Pratimā-lakṣaṇa (Pt. II).

,, V Yantra evaṁ Citra.

,, VI Translation of the Samarāṅgaṇa Sūtradhāra (Pt. I & II).

,, VII Samarāṅgaṇa-Vāstukoṣa.

,, VIII Vāstu-Śāstrā Vol. I.

Hindu Science of Architecture.

,, IX Vāstuśāstra Vol. II.
Hindu Canons of I conography and Painting.

,, X Vāstu-Śāstra Vol. III—Glossary and Illustrations.

N. B.—Vols. I, IV (two pts.), VIII & IX are completed. Vol. V. contributed in Hindu canons ot Painting or Citralakṣaṇam & Vol. VIII—vide Palace-architecture and Palace-pleasures, the Yantras. Vol. III. has been partially presented—vide 'Hindū Prāsāda—Caturmukhī Pṛṣṭhabhūmi'

CHAPTER I

INTRODUCTORY

(i) General Introduction to the work.

King Bhoja of Dhārā, one of the greatest rulers of India, ruled from 1018 to 1060 A. D. He was great in the art of Government and war, but still greater in the art of peace. He had earned immortal fame as a great patron of poets and men of letters and a mass of legends has grown about his name. He is reported to be the author of more than three dozen works. These works, published and unpublished, show a wide range of subjects. Poetics, grammar, philosophy, medicine, astronomy, lexicography, architecture and archery, to mention only a few of the subjects, distinct in nature and definite in their respective domains, had an equal fascination for the illustrious king.

Sri Viśveś ara Nātha Reu has laboured very hard in his treatise on 'Rājā Bhoja' (published by Hindustani Academy) in collecting all the available material on the subject to give an account of the life and works of Bhoja. He has given a list of the following thirty four books ascribed to Rājā Bhoja of Dhārā :

1. **Astronomy**	: 1. Rājamṛgāṅka 2. Rājaamārtaṇḍa 3. Vidyujjana - vallabha - praśnajñāna 4. Adityapratāpa-siddhānta and 5. Bhuja-balanibandha.
2. **Poetics**	: 6. Sarasvatī-kaṇṭhābharaṇa and 7. Śṛṅgāra-prakāśa.
3. **Yoga-philosophy**	: 8. Rājamārtaṇḍa-Yoga-sūtra-vṛtti (commentary on Pātañjala-Yoga-Sūtra).
4. **Politics and Dharma-Śāstra**	: 9. Pū ārtaṇḍa 10. Cāṇakya-Rājanīti-śāstra 11. Vyavahāra-sammuccaya 12. Cārucaryā 13. Vividha-vidyā-vicāra-caturā and 14. Siddhānta-sāra-paddhati.
5. **Architecture (Śilpa)**	: 15. Samarāṅgaṇa-sūtradhāra & 16. Yukti-kalpataru.

6. **Poetry & Drama** : 17. Campū-Rāmāyaṇa (or Bhoja-Campū) 18. Mahākālī-vijaya 19. Vidyā-vinoda 20. Śṛṅgāra-mañjarī (prose) and 21. Kūrmaśataks (in Prākṛta).

7. **Grammar** : 22. Prākṛta-Vyākaraṇa and 23. Sarasvatī-kaṇṭhābharaṇa.

8. **Medicine** : 24. Viśrānta-vidyā-vinoda 25. Āyurveda-sarvasva 26. Rājamārtaṇḍa-sārasaṃgraha.

9. **Śaivism** : 27. Śivatattva-prakāśa 28. Śivatattva-ratna-kalikā and 29. Siddhānta-saṃgraha.

10. **Lexicons** : 30. Nāmamālikā and 31. Sabdānuśāsana.

11. **Miscellaneous** : 32. Śālihotra 33. Subhāṣita-prabandha and 34. Rājamārtaṇḍa (Vedānta).

The question of authorship of these works is worthy of an independent investigation. Nothing can be said authoritatively—what books were his own and what were produced under his patronage by the talented Pandits of his Sabhā. Tradition, however, warrants us to remark that king Bhoja did win the laurels as versatile, talented and authoritative an author, as per the evidence which has come down from the writings of his successor writers who have acclaimed his authorship of the different works on the different subjects.

Aufrecht (vide his Catalogus Catalogrum) says that there are references to the authorship of Bhoja in the following post-Bhoja writers and works :—

1. Śūlapāṇi (cf. Prāyaścitta-viveka);
2. Daśabala — the Buddhist writer;
3. Allādanātha and 4. Raghunandana.

   N. B.—All these writers have acclaimed Bhoja's authority on Dharmaśāstra.

5. Bhāva-prakāśa and Rugviniścaya of Mādhava attribute to him the authorship of the works on Āyurveda.
6. Keśavārka acclaims him a writer on Astronomy.
7. Kṣīra-swāmī, Sāyaṇa and Mahīpa acclaim him as a grammarian and lexicographer.

Similarly the following quotations also prove the place of Bhoja among the reputed Sanskrit-authors :—

मुनीनां भरतादीनां भोजादीनां च भूभृताम् ।
शास्त्राणि सम्यगालोच्य नाट्यवेदार्थवेदिनाम् ॥

(cf. Kāṭayavema's commentary on Abhijñāna-Śākuntalam ref. in Government Mss. Litrary Madras—Sanskrit books—Pt. I. Sec. I (A) p. 405—Kuppuswami).

भोजराजेन यत्प्रोक्तं स्मार्तमन्यत्र चोदितम्
न्यायसिद्धं च संगृह्य वचनानि पुरातनैः ॥
अनुष्ठानप्रकाशार्थं स्मृतिरत्नं मयोच्यते ॥
(ibid 646)

भोज इवायं निरतो नानाविध-निबन्ध-निर्माणे ।
समयोच्छिन्नप्राये सोद्योगः कामशास्त्रेऽपि ॥

(cf. Kandarpa-cūḍāmaṇi of King Vīrabhadra).

We know that Bhoja's works like Sṛṅgāra-prakāśa, Śarasvatī-kaṇṭhābharaṇa and Raja-mārtaṇḍa and his contribution in these works were quite well known. His contribution to the science of architecture was very little known or practically unknown till the Late Mahāmahopādhyāya T. Gaṇapati Śāstri, edited this work in the G. O. S. in two volumes. Naturally, therefore, the life and works of such a gifted and talented author, such a versatile genius must fascinate any research-scholar. It was my good fortune that my revered teacher Prof. K.A.S. Iyer prescribed for me the subject "THE LIFE AND WORKS OF RĀJA BHOJA" for my Ph. D. dissertation after I had taken my M. A. in Sanskrit from the University of Lucknow in 1940.

Though the subject originally chosen was 'Life and Works of Rājā Bhoja' as time passed and I glanced over the material and the extensiveness of the subject-matter, I found the topic worth several theses. Dr. Raghvan of the University of Madras had already written his dissertation on Śṛṅgāra-prakāśa. I was, therefore, allowed to concentrate on one single text of that voluminous literature ascribed to Bhoja, the Samarāṅgaṇa-Sūtradhāra, a treatise on the science of Architecture. I was expected to elucidate its contents and give a factual presentation. I have spent several years on this *work (writing its summary, translation, study, glossary and still grappling with the illustrations of the architectural and sculptural objects) and I am now happy to present a part of the results of my study in the following pages.

The Samarāṅgaṇa-sūtradhāra is a remarkable legacy of Bhoja whose rule was noted for splendour and grandeur together with liberality

*It is on the nucleus of this study of Bhoja's Samarāṅgana-Sūtradhāra that I have instituted an extensive research under the general caption 'Bhāratīya Vāstuśāstra or Vāstuśāstra and have attempted a comprehensive survey of the whole branch of this technical lore—vide the series of my publications already refered to, in the Introduction.

and catholocity. It is also a brilliant testimony to his grand and eloquent style not only in the field of the literature he produced but in every walk of life, the life of a benevolent king—his court, his administration, his patronage of art and literature, his ideal of social conduct and religious dedication.

We are familiar with the treatment of this subject of architecture, the Śilpa-śāstra or Vāstu-śāstra in the pre-Samarāṅgaṇa-works both architectural-proper like Mayamata, Mānasāra, etc. and non-architectural class of works like Bṛhatsamhitā, Matsya-purāṇa, Agni-purāṇa and so many other Purāṇas as well and Āgamas like Kāmika, Suprabheda and a host of others together with so many other miscellaneous treatises like Arthaśāstra of Kauṭilya, Śukra-nītisāra and a good number of religious treatises as well. Their scope of treatment is limited to what may be termed as architectural and sculptural topics. Take for instance the Mānasāra and it will be noticed that of the seventy chapters of the book the first eight are introductory, the next forty-two deal with architectural matters, and the last twenty are devoted to sculpture (see for details H. A. I. A. pp. 157-8)

A brief notice of the contents of the chapters of the S. S. (vide the tabulations of the re-arranged chapters subject-wise in a chapter ahead) however, will give us an impression that it does not only treat the architectural subjects like Town-Planning, House-architecture, Temple-architecture, and sculptural subjects like Pratimā-lakṣaṇas iconography iconometry and iconoplastic art together with the Mudrās, the different hand poses, the poses of the body as well as the postures of legs, but it also deals with the canons of Painting and devotes a big chapter to the art of mechanical construction, the Yantras. Yantras and Citras are the two special features which it has introduced in the body of Śilpa-śāstra consistent with its very broad scope of architecture (cf. the chapter ahead).

Thus it suffices here to say in this general introduction to the S. S. that out of its eighty- three chapters, in its first forty-eight chapters, it treats three principal subjects. Firstly in the first seven chapters together with the fortyfourth and fortyfifth, the introductory subjects like need, origin, schools, scope and subject-matter of architecture and qualifications of an architect are dealt with. Next follow the regional planning, the surveying of the land, the examination of the soil-conditions (Bhūparīkṣā 8) and the system of measurements (Hasta-Lakṣaṇa 9) and the detailed canons of town-planning (Puraniveśa 10) together with the site-plans (II to 14 as well as 38), of the different

categories of the Vāstu-padas fit to be employed in towns and temples as well as the houses residential and the palaces of kings. Thirdly, it deals with the house-architcecture (civil arcitecture or popular architecture or more appropriately the secular architecture as opposed to religious or devotional architecture, the temple-architecture) in the subsequent thirty chapters.

This house-architecture can be conveniently split up in two broad divisions of popular residential houses suited to the middle-class people both high and low according to the castes and professions (jātivarṇādhivāsa) and the Royal palaces best suited to the nobles and kings. To the former are devoted about twenty chapters in details of preliminaries like Āyādinirṇaya, Kīlaka-sūtrapāta, the first operations, foundation-laying ceremony (Śilānyāsa-vidhi) and offerings etc. (see for the detailed designations in the tabulation referred to, above); the categories and classifications of the residential houses, the Śāla-houses; the architectural details of planning and constructions, like the material, the masonry, the door, the pillar and decorations etc., and lastly, the mystic ideas associated with Hindu architecture like Vedha, Bhaṅga and defects (ibid).

To the latter it devotes six chapters, out of which the fifteenth (Rājaniveśa) and thirtieth (Rājagṛha), all exclusively are devoted to the exposition of Palace-architecture, the planning of the Royal Palace (15) and different varieties of the palaces (30), both residential palaces (Nivāsa-bhavanāni) and pleasure-palaces (vilāsa-bhavanāni) together with their characteristics of architectural details of floors, pillars, storeys and ornamentation.

The other remaining chapters may be taken to deal with the accessory buildings and the establishments of the royal palace, the Aśva-śālā (33), the gaja-śālā (32), the Sabhā (27), the assembly hall or council-chamber as well as the princely shrines and the palaces of the royal relatives and the other dignitories like commanders, priests and ministers, the Āyatana-niveśa (51).

It gives an honoured place to the topic of Yantra-ghaṭanā, the art of mechanical construction (cf. the 31st chap.) delineating upon the definition of the yantra, its elements, qualities and manifold varieties of pleasure-machines, toy-machines, the machines of warfare as well as the domestic machines like Dvārapāla-yantra, the door-keeper-machine, Yodha-yantra, the soldier-machine, etc. and Vimāna-yantras (the aeroplanes) like Vyoma-cāri-vihaṅgama-yantra, wooden-bird-machine travelling in the sky and Ākāśagāmi-dārumayavimāna-yantra, wooden-vimāna, machine flying in the air together with a good

many varieties of Vāri-yantra, water-machines, Dhārā-yantras the shower machines and the Ratha-dolā-yantras—the swinging machines.

Further next it has also devoted a full chapter to the art of the construction of the articles of household furniture like cots and couches (Śayanāsana 29).

Thus closes the general introduction to the subject-matter of architecture as treated in the first forty-eight (and 51st) chapters, in which canons of three principal topics of architecture namely, town-planning, house-architecture and construction of machines and articles of household furniture are delineated upon.

In the next twenty chapters, it deals with temple-architecture, the most favourite theme of the author of the S. S. devoting about half of the work to the exposition of this most fascinating topic, the crown of Indian architecture, both in the monuments and the manuals alike, in all the details of the origin and development of the Prāsīdas, the Hindu Temples, their manifold classifications, lay-outs, measurements, superstructure and the finial as well as the decorative motifs both of the central shrine, the Prāsāda, and the accessory buildings like Maṇḍapas, the pavilions, the places of piety and religious rites together with the Jagatīs, the raised platforms for congregational gatherings and social festivities, the basements of the temples, (cf. ahead for the detailed division of the subject chapter-wise—vide the tabulation of the re-arranged chapters).

As regards the different styles of temple architecture, it has added two more to the ternary of Nāgara, Drāviḍa and Vāvāṭa (or Vairāṭa, Vesara, being conspicuous by its absence in this manual) the Bhūmija and Lāṭa (though it does not use this last term), besides dwelling upon at length on the manifold temple-types, the jātis of the Prāsādas. All this will be dealt with in detail in its proper place (Pt. V.).

In the last fourteen chapters (70 to 83) is treated Iconography both sculptural and pictorial. To the sculpture proper are devoted as many as eight chapters in details of the Pratimā-lakṣaṇa of the Liṅgas and their pedestals as well as of other principal gods and goddesses together with the standard measurements, mudras and defects of the icons sculptured or painted.

To the Canons of Painting this text devotes six chapters (71 to 75 and 82 cf. the tabulation ahead). As already pointed out, the treatment of painting in this manual is its special feature and a full

notice of its contribution is critically examined in the writer's independent work 'Hindu Canons of Painting or Citralakṣaṇam'.

(ii) The Method of Treatment.

Now with this general introduction to the work, I may proceed with the method of treatment to be attempted. While acquainting myself with the contents of the work and the objects found in the monuments representing all phases of evolution and development of Indian architecture with the help of the contemporary writings on architecture, I began to feel that perhaps all is not well. The subject of architecture being of a very technical nature, it is difficult to do full justice to it unless one has a body of scholars specialists in their own respective branches, History, Archaeology, Engineering, Drafting, Painting, Sculpture, Iconometry, etc. etc. This co-operative and co-ordinated venture is essential for a synthetic outlook in the architectural researches on this most fascinating branch of Indology. A merely textual treatment of the subject or one based on the study of the actual monuments can not give the full results. Both need to be correlated. I began to feel that for a scholar doing research on a work like this, a merely textual treatment of the subject will not do. That is, the study of a treatise on the science of architecture would be neither complete nor very much beneficial, unless we take into account the existing monuments and other specimens of buildings (such as are found in ancient paintings, and base-reliefs etc.) and make an attempt to evaluate how far these treatises were followed by the architects and their gurus, sthapatis and the Sthāpakas of the day—that is, again how far these works on Vāstu-śāstra were the standard compendiums and guide-books on architecture of the monumental buildings—the stupendous work of art-craftmanship. And conversely how far the contents—the innumerable varieties of classifications of buildings, their elaborate treatments, ornamental super-structures and different layouts and proportionate measurements of the temples and other buildings as depicted in them actually correspond to the facts. This treatment of the subject may be termed as the objective approach to Indian architecture as the true import of the term implies. It is both a science and art. I, therefore, may be permitted to remark that this synthetic point of view in the treatment of Indian architecture has been hardly followed by scholars. Though it is a fact that the traditional lore and practical guidance handed down from generation to generation in the families of the mason-architects scattered throughout this great land were a problem to tackle. The texts were distorted, the custodians illiterate; hence any grappling with this

field of inquiry was beset with insurmountable difficulties. The result has been that Indian architecture as treated in the contemporary works, does not show its indigenous character. The avoiding of the dfficulty and pursuing the royal path of actually studying the existing monuments,little caring about the architectural traditions behind them, the Śāstric injunctions guiding them, are, in my opinion, only doing half the work. The limitations no doubt are obvious. The architectural survey by the Indologists in both the fields of textual and objective investigations of the subject suffered from this limitation. The monumental works of Havell, Smith, Coomarswamy, Furgussen and Burgess and other savants in the field, while investigating minutely the character, style and other allied details of the composition of the ancient and medieval monuments, have hardly given their serious thoughts to the manuals of architecture and their correspondence to the actual monuments. Dr. Acharya, while pioneering the investigation of a standard manual on architectural science, the Mānasāra, in as many as seven volumes, has hardly shown the correspondence of the Mānasāra mansions to the actual monuments. The intensive study of an architectural text like the S. S. and its commentary in the light of the existing monuments is the real approach to this difficult subject. Though it is very difficult to follow a middle path, the path of the synthetic treatment of the subject, in which the manuals and monuments both should receive due attention, I have set this ideal for myself, the following of which will be my life's task.

This is one aspect of the new investigation. The other aspect, which is equally essential, is the unfolding of the culture of which it is a representative, and I have never lost sight of the fundamental angle in my studies. We know that some of the basic conceptions of architecture are religious in character and the religious origin of Indian Architecture is well-known. This religious background of Indian architecture represents the broad cultural view of Hindu life. This point can be expanded very much, but our aim is only to hint at it as one of the important points of view in our study of these technical sciences.

(iii) Method of Study and the Re-arrangement of the S. S.

Lastly in this introductory chapter, I ought to have indicated the method of study I have followed in this work but this topic has been dealt with in the "Introduction" of this work.

A special mention, in this connection, has to be made of the re-arrangement of the contents (chapter-wise) of the S. S. which I have made. It was necessitated, because the author being a king,

the compilation and the arrangement might have been left to some of his assistants, or it might be a later mishap that the present arrangement is faulty and gives an impression that the work, especially the first 48 chapters of it, lack coherence, logical sequence and order (vide Dr. Acharya's notice of the S. S.—H. A. I. A. pp. 178-81). Hence an attempt at the re-arrangement of the chapters is made to rectify this defect—vide the chapter 'The study of Hindu Science of Architecture.' Thus in brief is indicated my humble attempt towards the great task of studying a technical work, making known to the public, its contributions in the realm of architecture. Whether I have been successful in interpretating the data faithfully and correctly or not, is for the scholars to judge. Fortunately many of them are living, and to them I owe a debt of gratitude, because, but for their pioneering work in this field, a scholar like myself with meagre resources could never have attempted the humble study of a great work. I am really very happy to remark that this study of Bhoja's Samarāṅgaṇa-sūtradhāra has been acclaimed a pioneer work—vide the report of the examiners (extracts given in the Introduction).

CHAPTER II

THE SCOPE & THE SUBJECT MATTER OF ARCHITECTURE

(1) Scope.

Samarāṅgaṇa reads like a Purāṇa of Vāstu-śāstra. The first seven chapters, the preliminary chapters which deal with the advent of the Earth; the dialogue between Viśvakarmā and his sons; the Query (the questions regarding the science and art of architecture in its broadest sense of the term)—the Creation, the earth with its continents, oceans, rivers and countries; the origin of the first house and the division of the society into the Varṇas and Āśramas—all these preliminary chapters though apparently dealing with "entirely non-architectural matters" are really not so. In them we find the term Vāstu not only fully explained but its scope and its relation with sciences like Cosmology, Geology, Astronomy, Geography and Architecture itself is fully indicated as a study of the contents of these chapters will show.

(a) Philosophical and Cosmological.

We are familiar with the philosophy of the Vāstu-Brahma-Vāda. The philosophical or religious background commonly attributed to these treatises, represent their truly Indian character. In India we can not draw a line of demarcation between Science and Philosophy. The truth is, a science without a philosophy or religious background is not a complete science, according to Hindu view of life. It is in keeping with the fundamental background of the Indian science that even such a practical or matter of fact science as the science of architecture is, has such a lofty philosophical theory as 'Vāstu-Brahma-Vāda' or 'Vāstu-Puruṣa-Vāda' as its background. The growth and evolution of the temple, the chief feature of Indian architecture both in the ancient and medieval periods of Indian History, represents this ideal of the architectural science from the bottom to the top (vide Part V. the Prāsāda-Vāstu). The temple as a divine image according to our Śāstric injunctions, has divine-ness all round, below and above, within and without, all aglow with the divine presence. The architectural motif of the temple super-structure from the bottom to the finial represents the divinity in both its aspects—the one with form and the other formless (Sākāra and Nirākāra).

What is its implication in relation to the scope of the science? The essence of the Sanskrit word Vāstu is planning. Creation and Planning must go together. Creation of the world and its planning are twin sisters. The author of the Samarāṅgaṇa must be having this fundamental truth in mind when he says (cf. 2nd Chapter, 4th verse) that Brahmā, before creating this world, created Vāstu. Cosmologically, therefore, all this creation is a planned unit. This is a universal aspect and it corroborates the fundamental truths of life and conduct forming the first essence of civilisation, in which the ordered society and lawful, peaceful, beautiful way of life is to be evolved. Hence the planning of such a part of the Universe viz. the Earth, requires concentrated effort of the trinity or triad, i. e. the architect-planner, the patron king and the substratum, the earth. This trio is represented by Viśvakarmā, the heavenly architect, appointed by Brahmā himself, to build places of habitation on earth; the king Pṛthu, the patron king who was primarily entrusted with the work of levelling the earth and making it fit for growth and habitation and the Earth itself also must co-operate in order to accomplish the planning. This is the sum and substance of the first chapter (see Vāstulakṣaṇa also.) This character of the planning—the planning, the essence of architecture, its pre-requisites—indicates that the stand-point from which an architect has to start his work, the unbroken traditional mission of Viśvakarmā, as entrusted by that Primordial Creator Brahmā Himself, can not be a limited one. It is in keeping with the broad principle of life and conduct that some philosophical background has been provided in practically all the so-called material sciences and arts. This cosmological background of the scope of architecture is in keeping with the Indian view of life.

We know that an ideal planning of a house, of necessity, takes into its account the planning of its surroundings. Similarly the ideal planning of a town or city or a village or fort must, of necessity, take into account the region in which it is located. Again the regional planning in its turn must take into account the character of the country, the Janapada, Rāṣtra, Deśa, as a whole with its rivers, mountains, seas, forests and the like. But a country, however well-planned, if it remains isolated and does not take care of the well-being of other countries, discord, dispute, unhappy quarrels, fights, wars and all that will be the result and this result is an abiding misery and unhappiness. Hence, for its own happiness, safety and peace a country must, of necessity, take into account the planning of all other countries. Thus the planning of the whole world on earth emerges. The thing does not end here. In the solar system, the

relative size of the earth is known to us and there are so many other such systems comprising this vast universe. The life on earth is very much influenced by, and rather dependent on, other planets. In one word the different planets are interdependent. When such are the natural truths showing the interdependence of the planets, should the truths not be brought home to man and should there be no interdependence inter-association and inter-cooperation, in one word inter-planning between nation and nation, man and man? Surely it should be, rather it must be, otherwise the results would be simply bad. This is the import of the cosmological aspect of the scope of architecture as hinted in the preliminary chapters of the S. S. (1 to 7).

(b) Meta-physical.

Now as to the metaphysical implication of the scope of architecture, we know that the drawing of the square-plan technically called Vāstu-Puruṣa-Maṇḍala, is imperative before any building-activity can be undertaken. According to the S. S. (45·2) the knowledge of its meaning and execution is the first limb of the Sthāpatya, the first discipline which the architect must master. This physical drawing is symbolic of the metaphysical doctrine of all-pervading cosmic principle, according to Harivaṁśa (chapter 1-7): "The Puruṣa is the Universal Essence, the Principle of all things, the Prime Person whence all originates". Again 'Vāstu' here, is the extent of existence in its ordered state and is beheld in the likeness of the Puruṣa. The image of the Supernal or Cosmic Man, the Puruṣa is congruous and identical to the planned site". This is what the S S. in its very opening benedictory verse unfolds in the conception of Lord Śiva—the architect of all the three worlds.

(c) Astronomical-Astrological.

Architecture really is very intimately related to Astronomy and Mathematics. Āyādi-nirṇaya is an important chapter in the S. S. full of astronomical details. This Āyādi is technically known as Sad-varga, a group of six, six formulas, 'with which the perimeter of structure should conform'. These formulas, however, are treated differently in different texts, nevertheless, all are unanimous to accord an important place to this astronomical chapter in their treatises. These formulas may be taken as six canons of Indian architecture (cf. V. K. R. Menon's pamphlet 'Six Canons of Indian Architecture'). The celebrated astronomer, Varāhamirhira's work Bṛhat-saṁhitā is one of the authoritative manuals on the Vāstu-Śāstra (Architecture & Sculpture both). Vāstu-Śāstra may be called applied-Astronomy.

Varahamihira while introducing the chapter on architecture (52nd) in his Bṛhat-Samhitā, says "Vāstujñāna, architecture, will be explained by me for the pleasure of the astronomers and astrologers as has been transmitted from Brahmā to our own day through an unbroken line of sages".

Building operation can commence only under favourable stars. The Āyādiṣaḍvarga, treated here in the book, and invariably treated in every manual is a fact to bear out the testimony of Astronomy. We have already noticed the metaphysical implication of the Vāstu-Puruṣa-Maṇḍala. Its cosmological and magical implications in the field of Astronomy-astrology are derived from the same. This astronomical and astrological implication has been very ably established by Prof. Stella Kramisch (cf. H. T. P. 37). The S. S. devotes a considerable portion to the heavenly bodies as the constellations (vide chapters 5. 85-104; and 11 to 14) who do exercise their influence on the creative activities of mankind.

The intimate relation between astronomy-astrology (also Mathematics) and architecture is established in more than one ways. While describing the qualifications that go to make an expert architect, the S. S. mentions the knowledge of astronomy-astrology and mathematics as an indispensible equipment of an architect and thereby the essential constituents of the science of architecture (chapter 44-4-4). The work also hints at the ancient tradition of the intimate relation between the science of architecture and the science of stars as handed down from Brahmā (whose abode is the lotus) (10-77). Again a knowledge of form (rūpa), number and proportion was an indispensible equipment (cf. Sthapati-Lakṣaṇa Ch. 44). Mathematics and architecture had their root in the Vedic altar. The Śūlba-Sūtra contained in the Kalpa-sūtras prescribe proportionate measurements for laying out and setting up the Vedic Altar. A learned Mathematician Mahāvira, of the early medieval period speaks of the use of the science of number (gaṇita) in architecture (cf. his 'Gaṇita-sāra-saṅgraha (1. 9-19).

(d) Geographical & Geological.

It is one of the unique features of the work that the Samarāṅgaṇa considers, for the well-ordered planning of a town, a region or a country or a building (Chapter I. 4-5 cf. V. L. p. 4), as an essential pre-requisite, not only a knowledge of the topography of the land and the surroundisngs in which the planning is to be commenced, but also such a knowledge of the whole world—rather the whole universe with all its stars, planets, continents, rivers, mountains, seas, varṣas, etc.

This is why it has devoted a full-fledged chapter of a hundred lines to the exposition of the physical geography of the world in which the dimensions of the earth, its shape etc., the sevenfold continents beginning with Jambū-Dvīpe, together with their respective peoples, mountians, rivers and seas, lokālokācals and lastly, the movements of the heavenly bodies are described. The survey of the land and the site, the examination of the soil conditions, the testing of the soils—these are the first fundamentals of the architectural planning. Samarāṅgaṇa gives first place to the geological or physiographical survey in any undertaking of architectural planning. Jaya, the spokesman of his brothers, puts the query to his celebrated father, Viśvakarmā regarding these subjects in one of these preliminary chapters of the work (3rd Chapter vide V. L. also). Thus the architecture may also be said to be applied Geology, where the examination of the soils having different varieties of sound, touch, smell, colour and taste and the testing thereof to ascertain whether a soil is fit for building of a town, a village, or a house or not, are prescribed. Both porous and loose soils are avoided and deemed unfit for the construction of a building (S. S. Chapter 8).

Again the story of Pṛthu and Pṛthivī, as related in the very first chapter of the S. S. and also the 7th Chapter, the last number of the Preliminary Chapters is re-counted with the one aim of giving the stability of the site on the unstable and moving earth. The accounts of Śatapatha-Brāhmaṇa and Śāṅkhyāyana-Gṛhya-Sūtra, if examined and related with this story, and the Paurāṇika story found in Purāṇas like Viṣṇu and others, represent the geological implication in the profoundest manner. King Pṛthu whose proto-type is Yama, the Dharamrāja, has not only made the earth yield corn for the benefit of mankind, but has also levelled her in order to establish human habitations. She becomes then fit for the laying out of the habitations both of mortals and immortals.

(e) Architectural.

Lastly, in unfolding the very broad scope of architecture, the implication of the term Vāstu, as understood by the ancient Acharyas of the Science, is very helpful. According to Mānasāra, the term Vāstu in its broadest sense implies dharā (the earth), harmya (building) Yāna (conveyance) and Paryaṅka (bedstead). Amplifying the four-fold implication of architecture, Dr. Acharya says (vide Encyclo. 456) "The building or Harmya includes Prāsāda, Maṇḍapa, Sabhā, Śālā, Prapā and (a) Raṅga. The conveyance or Yāna includes Ādika, Syandana, Śibikā and Ratha. The bedstead or Paryaṅka

includes Pañjara, Mañcali, Mañca Kākaṣtha, Phalakāsana and Bāla-paryaṅka (ibid 7-12). The term denotes also villages, towns, forts, commercial cities, etc, a dwelling house, a group of houses (cf. Pastyā), a site (R. V. IV, 37, 2 I, 2; A. V. II, 12, I, etc.). Sculpture is the handmaid of architecture and is secondarily implied by the term 'Vāstu'." Purāṇas like Agni (ch. CVI, V. I) and Garuḍa (Chapter XLVI) corroborate this implication. Kauṭilya's Artha-śāstra (chapter LXV. page 166) also corroborates this broad scope of architecture. The S. S. while introducing the need of architecture as an auspicious and benedictory institution illustrates the subject by enumeration of some of these implications in the 4th and 5th verses of the first chapter constituting the scope of architecture—cf. V. L.—**Deśa**, the country (cf. the different varieties of the deśa and the manifold varieties of deśa-bhūmis, thus is indicated the Regional planning constituting the first step towards any group planning);—**Pura**, the town (cf. the different varieties of towns ; the capital cities, the commercial towns etc.) ; **Nivāsa**—the habitations, like villages and hamlets, scattered in the country side;—**Sabhā**, the assembly hall or the council chamber (forming one of the accessory structures in a royal palace);—**Veśma**, the three broad divisions of house architecture, the residential houses, the palaces of kings, and the temples, the abodes of gods and goddesses and the—**Āsana**, the seats, thrones, the cots and couches, etc. A more detailed presentation of the S. S. 's treatment of the Scope of architecture will follow (vide the Praśna, the Query), ahead.

According to Mayamata, Bhūmi, Prāsādas, Yāna and Śayan constitute the Vāstu and these form the principal topics of the contents of the S. S. Yāna, in the S. S. is aeroplane (cf. Chapter 31).

However this is not enough. Architecture is both a science and an art. Therefore, the business of the architecture is not only to lay down the norms for the guidance of architectural creations but also to evolve these creations in such a manner as to give an aesthetic experience, the apperception of which makes an individual forget himself and experience such a blissful state as to plunge himself into another world—the world of Beauty. When we see Kailash at Ellora, the monumental caves, the painting of Ajantā, and the like, the sublime architectural remains in our land, we feel we have seen not the work of man but of an angel. The Creator Brahmā had created this world. It was left to Viśvakarmā, the first architect of the world to plan it, and to plan it beautifully. The story

goes that after creation Brahmā entrusted the work of maintenance to Pṛthu, the first king on earth from whom the earth, among other names, is called Pṛthivī. A warrier king could not accomplish the task of an artist. A Bhūpati and Sthāpati are two different men. Naturally Pṛthu failed and so he went to Brahmā to relate his woeful story. The goddess Earth too straight away went to Brahmā. The king and the mother Earth when both approached Brahmā, He called in Viśvakarmā and entrusted the task of this planning to him. Viśvakarmā took counsels from his four sons who were as skilled as the father and narrated his mission and asked them to cooperate in the great mission of the planning of the world. This brings us to the subject matter proper. From high heavens we come down on earth. In the Third Chapter (Praśna, The Query), Jaya, the eldest son of Viśvakarmā, assumes the role of the spokesman of his brothers and put the questions to his father relating to the different subject-matters of the science. This is the traditional way of Pūrva and Uttara Pakṣas, the literary technique of the Śāstras. The whole book is nothing but an exposition of these different questions as architectural canons relating to the different matters, forming the very structure of the whole science. These questions relate to the following subject-matters of the science and art of Architecture and arranged on selfsame procedure of preliminary, town-planning, house-architecture, mechanical construction, temple-architecture and iconography (see also V. L.)

I Preliminary :

A. **Cosmological** (4, 7 & 8):

(i) Creation—Mahābhūtas, Amarapurī and the luminaries ;

(ii) The movements of the planets—solar-system and other constellations and the relative distances among each other, together with their Substratum and the Instrumental cause ;

(iii) The existence above the earth, above and below the Mahā ūtas.

B. **Cultural** (9) :

The land-marks in the human culture in the different phases of its existence—the Yuga and its Dharma—the first species of creation, the first king, the first planet, the first Varṇa.

C. **Geographical** (5 & 9):

(i) Earth, its shape, size, base, measure—length, breadth, circumference, diametre and area ;

(ii) Mountains, their height and length and breadth ;

(iii) Continents and varṣas (countries) with their rivers, oceans and peoples and other characteristics.

D. **Geological** (10, 11 & 38):

Re-surveying of the land, the Deśa and the examination of the manifold varieties of the Deś hūmis as well as the different soils having variety in sound, touch, smell, colour and taste and their examinations to ascertain their suitability in planning of the different classes of habitations in accordance to castes and professions.

E. **Architectural (34, 39 and 40 etc).**

Scope, subject-matter and the schools of architecture, the architect and architecture, the preliminaries like offerings and foundations, Sūtraṇa, Adhivāsana, Orientation by means of a gnoman, the Śalyodhāravidhi, the Iṣṭikā-karma, the brick-work and the process of their finish.

II. **Town-planning (11-18 and 29-31).**

(i) The land-survey in connection with plannig of towns in all their categories like capital cities, forts, villages, kheṭas, etc. with approaches, frontiers and boundaries, fortification consisting of the ramparts, parapets, as well as doors (gates and gopuras) together with towers and turests, etc. and other devices to make it look more beautiful;

(ii) Street-planning;

(iii) Site-planning;

iv) The installation of the Indra's Flag and foundation and dedication of temples and shrines etc;

(v) The folk-planning, castewise and profession-wise (jātivarṇādhivāsa).

III. **House-Architecture (21-28, 32, 33, 35-37 and 41-59).**

(i) The palace-architecture—the palace with all its appurtenances and other establishments, viz. pleasure-gardens, kitchens, treasury, arsenals, stores, gymnasium, dancing and music halls, bath-rooms with showers and fountains, bed-chambers, theatre, glass-rooms, queens' chambers with swing-rooms and lying-in-chamber, the Aśoka-lines, creeper-sheds, orchards, pavillions, all well decorated; Vāpis, wooden hills, flower-beds, as well as the residences of princes, priests, prime minister, commander and other royal personages.

(ii) The House-Architecture—the varieties of the houses in general, their component parts like śālās and alindas, with their mouldings, the special varieties of houses, the material, the masonry, the decorations as well as other architectural details of the timber-work, brick-work, door-work, pillar-work, the roofing (the canopies etc.), and so on so forth;

(iii) Measurements, the site-planning of nine plots, sixty four plots, eighty one ones etc. as well as Bhaṅgas and Vedhas etc ;

IV. Yantras etc.

Mechanical construction and the construction of the articles of furniture inferred from (cf. Dārukriyā 55), though not specially mentioned.

V. Temple Architecture (ibid).

Prāsādas, their proportions of measurements, layouts, storeys, śikharas and other elements of structure and superstructure and the finial together with mouldings, etc. etc.

VI. Iconography (Sculpture) (20)

Gods and goddesses in their conveyances, seats, in accompaniment of the Parivāra Devatās, colours, forms, ornaments, drapery, decorations, weapons, the age and other emblems.

VII. The Painting (55).

Chitra-kriyā and Lepya-kriyā.

Dr. Acharya in his 'Indian Architecture according to Mānsāra Śilpa-Śāstra' has very ably and aptly brought out an all-pervading and all-embracing scope of the science of Architecture. We know that many treatises on the science of architecture in India have been titled as Śilpa-śāstras. "The term Śilpa" Dr. Archarya says "means an art, fine and mechanical. It covers some sixty four such arts". But the Śilpa-śāstra in these treatises is used in the sense of the Vāstu-śāstra and the Vāstu-vidyā is enumerated as one of the sixty four kalās or śilpas. This in my opinion must be an old tradition when Vāstu-vidyā had not come to its own. In the First Century A. D. however (the age of Śukra) the scope of Vāstu-vidyā had assumed such an enormous, all-absorbing and all-embracing character that it became synonymous with all arts. It is why as per Dr. Acharya's treatment referred to, above, the literal meaning of Vāstu-śāstra would be science of architecture. But a complete Vāstu-śāstra deals with more than what is generally understood by architecture. In the Vāstu-śāstra, as we have seen in the preceding pages of the study together with the broad scope of architecture as just hinted by

the Samarāṅgaṇa itself, the term architecture is taken in its broadest sense and implies what is built or constructed. "Thus in the first place it denotes all kinds of buildings, religious, residential, military and auxiliary members and component mouldings. Secondly, it covers town-planning, laying out gardens, constructing market places including ports and harbours; making roads, bridges, gateways, triumphal arches; digging wells, tanks, trenches, drains, towers, moats; building enclosure-walls, embankments, railings, landing places, flight of steps for hill and bathing ghats and ladders. Thirdly it covers articles of furniture such as bedstead, ward-robes, baskets, cages, nests, mats, conveyances, lamps and lamp-posts for streets. It also includes the making of dresses and ornaments, such as chains, crowns, headgear and footwear and arm-wear. Architecture also includes sculpture and deals with carving of phalli, idols of deities, statues of great personages, images of animals and birds. It is also concerned with such preliminary matters as the selection of site, testing of soil, planning, designing, and finding out cardinal points by means of a gnoman, dialling and astronomical and astrological calculations"—(vide "Indian Architecture acc. to Mānasāra Śilpa-śāstra" page 1-2).

This is a bird's eye-view of the treatment of the scope of Vāstu-Śāstra as given in the two most representative texts of Indian Art, the Samarāṅgaṇa-sūtradhāra (Nāgara School) and the Mānasāra (Drāvida School); as regards the treatment by other texts like the Aparājita-pracchā, Mayamata etc., it should be studied in the Vāstu-laksaṇa.

CHAPTER III

THE ARCHITECT AND ARCHITECTURE

The Sthapati.

Much has been written on the Indian Architect both in the critical contemporary literature and the Śāstric compendiums, but the account which we get in the Samarāṅgaṇa (vide Chapters 44 & 45 Sthapati-Lakṣaṇa and Aṣṭāṅga-lakṣaṇa) is unique in the respect that it is not only more detailed but is more systematic and scientific from the modern point of view. We know that in India the science of architecture by the time of the S. S. had reached its fullest development. Some of the noblest and largest Prāsādas were set up about the tenth Century A. D. Naturally, therefore, in a building construction like the large Prāsādas where hundred thousands of men, masons, labourers, artisans, and artists were working in complete cooperation and uniformity of purpose with devotion and dedicated life, the water-tight divisions of the builders, the traditional fourfold division of the artists into Sthapati, Sūtragrāhin, Vardhaki and Takṣaka had lost its importance. According to the S. S. there were only two broad classifications of these servants of God and humanity at large—the Sthapati, the master-architect and the Sthāpaka, the architect-priest, the Guru, the Āchārya. This latter personality had importance only in the planning and setting up of religious structures namely the Prāsādas, the temples; otherwise the master architect, the Sthapati was the sole authority in any building activity—civil or royal.

We know that it is the architect who makes what the Architecture is (Sthāpatya —स्थपतेः कर्म स्थापत्यम्). All the Śāstric rules, all the materials, rich and varied, are useless, unless the architect so combines them, so moulds and shapes them—in one word—so reorientates them that quite a new thing emerges, a new creation springs up. Like a poet, the weaver of dreams, he weaves the poetry of buildings, like a musician he produces the rhythm of the structure, and like a creator, he creates a new creation. It was the genius or the superb artistic craftmanship which has been responsible in producing monumental buildings like Kailash at Ellora. Mr. Percy Brown (Indian Architecture page 90) speaking of Kailash at Ellora pays a glowing tribute to the master-mason whose dream had taken a concrete manifestation. The specimens of architectural achievements in monuments, our great heritage and pride, are equally aglow with the glowing tribute Mr. P. Brown has paid to Kailash.

The architect (the Sthapati) and architecture (Sthāpatya), from the point of view of pure art, are an integrated whole. The S. S. in the very opening lines of the Chapter 44th—Sthāpati-lakṣaṇa—Qualifications that go to make a Sthapati—says, "I am now going to describe the Sthāpatya as handed down to us from generation to generation, by the knowing of which the values and defects of the architects are known". The Sthāpatya is fourfold—the traditional lore (Śāstra), the practical experience (Karma), intuitive insight (Prajñā) and the righteous conduct and character, (Śīla) (ibid 2). These four elements comprised of the science of architecture are to be taken from the standpoint of an architect. These are really the qualities, the qualifications constituting the fundamental equipment which goes to make a Sthapati, an architect.

A Sthapati is not only adept in the Śāstra, i. e. the science of architecture, the traditional lore as handed down from generation to generation and expounded by the ancient Achāryas like Viśvakarmā, Maya, Garga, Agastya, Kāśyapa, Mānasāra, etc. etc.; he should also have the practical knowledge of the Śāstra. He should be an adept builder—a skilled artcraftsman. Again only the knowledge of the practical experience and the artistic perfection thereof will not do, if he lacks the personal insight, the genius of an architect (cf. the example of Kailash at Ellora). This is very important, because at times the Śāstric canons and the practical experience are all of no avail and it is his personal intuition, the immediate perception which comes to his rescue. Apart from these three qualifications, an architect must be a man of character above reproach both in the precepts and in example. Only such an equipped person can be a real Sthapati.

This is the general exposition of the equipment of a Sthapati. Let us go on with the text (vide Chapter 44) and take these one by one in detail (see V. L. also).

1. The knowledge of the Science—Vāstu Śāstra.

It is the first qualification which an architect must possess to start with. This Vāstu-śāstra, it may be pointed out, consists of the knowledge of the canons of the site-planning and its layout, the planning of the buildings, the laying out of gardens, parks, town-planning and regional planning and all that constitutes the traditional subject-matter of architecture (as already expounded). All this comes under Śilpa. Apart from Śilpa, his intellectual equipment should be broadened with the knowledge of carpentery, engineering, machine-making (Yantra-karma-vidhi) etc. Not only this, he should

be a skilled mathematician, an astronomer and astrologer and proficient in the knowledge of the Śiras, the conditions of different places (in order to avoid the Marma-vedha or any Vedha so meticulously enjoined by the Śāstra). The mental make-up needs not only the balance of mind and body, a subjective attitude in the architect, but this balancing should be mirrored in his art too. This is what is meant by the knowledge of the Chandas—the rhythm spoken of, by the text in combination with the knowledge of astronomy, astrology and mathematics (chapter 44—verses 3 and 4).

On this Śāstric equipment of an architect the text is very explicit. It says (ibid 6-8) if an architect is ignorant of the śāstras and, not having done any labour in their acquisition, adopts the profession of an architect, and is proud of his false knowledge, he must be done to death by the king himself. Such a self-conceited fellow is Rāja-hiṁsaka He is bound to bring death in this world if allowed to practice his false knowledge. In India, an architectural action, regarded as a religious action, a ritual, like a Vedic sacrifice, pre-supposes cent per cent perfection. Any imperfection was beset with evil consequences so much elaborated in these texts.

2. Practical Experience.

An architect, howsoever well-versed in the traditional science, if he is not a master builder, unskilled in the work, must become nervous in actual operations. Like a timid man on the battle-field he must faint at the time of action. Conversely, an architect skilled in action but ignorant of the Śāstra is also not a happy type. He is like a helpless blind fellow to be helped by others in his movements (walking and building). Such a helpless fellow must always be an apprentice to others and can never assume the role of a master-builder. He is compelled to rely on others. Hence adeptness in action is one of the essential constituents in making up an architect (ibid 8-10). What is the Karma ? The text gives the first priority to site-planning, then come the measurements, proportions in all respects—māna, unmāna, etc. After this follows the soil-examination with practical prescribed tests to ascertain whether a site is fit for an architectural undertaking. All this is related to the ground-plan. There is masonry, there are the component parts of building, their mouldings and roofings, etc. They require an expert hand in their delineation with profusion of architectural devices like 14 Lumālekhās, four-fold Gaṇḍikā-chedas and the seven-fold Vṛtta-chedas together with the correct joinery in the wooden beams and other wooden material used in the house-construction (ibid 10-12). Besides

this practical experience, the mastery of another eight-fold skill beginning with Ālekhya (painting), Lepyajāta (clay-moulding etc.), Dāru-karma (timber-work), Caya, the masonry and the art of sculpture and metallurgy are also enjoined by the text (idid 20-21).

3 Tne personal insight, Prajñā.

Again whatever degree of mastery and perfection an architect has attained both in the science and art, he is not yet a perfect architect, if he lacks the personal insight, the immediate intuition, readiness of judgment in contingencies, he is like an ichorless (nirmada) elephant who has lost his worth (ibid 13 & 14). Therefore, personal insight equipped with immediate intuition and the ability to proceed with the work even in dire contingencies is like an anchor in the fathomless ocean of the science of architecture. "This ocean of the science of architecture is very vast, difficult to fathom, devoid of light and pervaded with darkness allround, and having many regions still unexplored, can be crossed only when a wise man has an intuitive knowledge as his vessel. Only a wise captain can steer the ship of architecture (ibid 15)." This Prajñā equipment is really a great distinction of a true Sthapati (cf. the builder of the Kailash at Ellora who himself was struck with wonder saying, 'Oh ! How was it that I built it'—Dr. R. G. Bhandarker—Indian Anti-quary Vol. XII page 228).

4. The Character.

Over and above all these qualifications, the cream of the qualifications is the character above reproach which an architect must possess (ibid 16-18). The sacred task of architecture can be entrusted only to an architect of high moral character. In its absence he is susceptible to anger, envy, jealousy and greed, attachment and confusion which are great hurdles in the evolution of a true and auspicious art, the only aim of the science of architecture (S. S. 44). Therefore, the S. S. is very vocal on this essential qualification of a Sthapati and says, "an architect must strive at all cost to maintain his character and conduct. It is only then that the actions bear fruit and they in their turn become the harbingers of goodness on earch" (ibid).

This is the Samarāṅgaṇa's treatment of the Sthapati. The treatment of Sthapati, Śilpin, Ācharya, Sūtradhāra, etc. by other works may be purviewed in the Vāstulakṣaṇa Other details regarding the traditional origin of the architect-guilds, etc. may not be repeated here and they can be seen in works like Dr. Acharya's Encylopaedia of Hindu Architecture,

Incidently a few words may be added on the fall of architects and architecture which coathed in legendary accounts of the Purāṇas neverthelss betoken an implied truth that the sacred lore must not be possessed of and cultivated by those who have committed a blasphemy either social or religious.

Sthapati is Viśvakarmā and is described as a desciple (anuśiṣya) of the Sthāpaka, while the other three Sūtragrāhin, Vardhaki and Takṣaka also are said to be desciples of themselves in turn. In the Brahma-vaivarta-purāṇa (I-X. 20-23) is told the descent and fall of the Hindu architect and the craftsmen, from their celestial origin (see for details H.T. p. 9).

Sthāpatya.

The subject matter of the science of architecture from the standpoint of an architect, Sthapati has already been elucidated in the previous pages, but in continuation of the chapter, 44 of the S.S. chapter 45th entitled 'Aṣṭāṅga-lakṣana' (see also V.L.) gives the following constitution of the Vāstu-śārtra from the standpoint of an art of Sthapati, the Sthāpatya (स्थपतेः इदं स्थापत्यम्), and the Sthāpatya is synonymous with the science of architecture. Architecture is what the architect makes :

"This four-fold Sthāpatya—(as described in the previous chapter) —Śāstra, Karma, Prajñā and Śīla—is now being described with its eightfold limbs" (45-1). Among them the first and foremost is the settling and forming (Vikalpanā) of the Vāstu-puruṣa. This is the first limb of the body of Hindu Architecture. It is pre-requisite of all architectural work, sacred and domestic, religious and civil. The second limb consists of the planning of town, door-work, laying out of the roads, the planning of fortification, the enclosure, the Prākāra, etc., the aṭṭālaka together with the layout of the lanes, bylanes and the plotting out the whole area of the habitation of men and dedication to gods. The third limb is represented by only one subject—the architecture of Hindu-temple—the Prāsāda, being the foremost planning of Hindu Architecture. The 4th, 5th and 6th are the raising of the Indra's flag, the Royal palace with its paraphernalia of kingly establishments, the planning of the residential houses castewise and professionwise respectively. The seventh limb, spoken of, is the measurement of a sacrificer's shed, the sacrificial altar and the procedure of the Koṭihoma. The eighth, the last one, represents the planning of the forts and camps of kings, the encampments (ibid 2-9).

This is the S.S.'s conception of a Sthapati and the Sthāpatya, his art. It is in keeping with the etymological meaning of the word sthapati—master of what stands or abides. This again is the implication as to why the science of architecture—Vāstu-śāstra is also called the Sthāpatya-śāstra. Both are complementary to each other.

In the end, I may just make a few remarks regarding its place in the ancient sacred lore of India. Vāstu-śāstra, the science of architecture, does not find a place in the traditional list of sacred lore, the Vidyā-sthānāni. It does not, therefore, mean that it was not a Vidyā in the traditionally accepted sense of the term. It was part of the Veda, the primordial knowledge. We are all familiar that the Vedas had their Upavedas too. Sthāpatya-śāstra is one of the Upavedas, the auxiliary parts of the Veda. It was recounted as an applied knowledge subordinated to Atharava Veda just as Āyur-Veda is attached to Ṛg-Veda, Dhanur-Veda attached to Yajur-Veda and Gāndharva-Veda attached to Sāma-veda. Prof. Stella Kramrisch has very aptly brought out this ancient character of the science (see H. Temple p. 11): "Vastu-śāstra in its fullest exposition belongs to Tantra which is the applied knowledge of the Atharva-veda. As a ritual, architecture is moreover doubly linked with the primordial knowledge, i. e. the Veda and is included in two of the six Vedāṅgas. These are appendices which are auxiliary to Veda. The fifth Vedāṅga—astronomy-astrology, Jyotiṣa and the sixth Vedāṅga, Kalpa, in which are laid down the rules of the sacrificial acts, the ritual, are both in parts, essential constituents of the science of Indian architecture. The Śulba-sūtras contained in the Kalpa-sūtras, represent the rules and give proportionate measurements for laying out and piling up the Vedic altar. On them basically rests the building of the Hindu Temple". The Samarāṅgaṇa was fully conscious of this traditional character of the Sthāpatya. Accordingly it, in its chapter tenth entitled, 'Puraniveśa', (cf. 77th verse), enumerates the fourfold Sthāpatya by the side of the other Upavedas like eightfold medicine—the Āyurveda; seven-fold Military Science—the Dhanur-veda and the science of luminaries—the Jyotiṣa Upaveda (the astronomy-astrology), and it also hints at the common founder of all these—the Creator Brahmā, the lotus-housed one.

CHAPTER IV

AN OUTLINE HISTORY OF HINDU ARCHITECTURE

(Both as Science and Art)

It is a difficult subject to be treated in a single chapter. Master writers have expounded this subject in voluminous works. Pens of the renowned Indologists like Havell, Furgussen and Coomarswamy have simply marvelled in unravelling the mysteries of Indian art. Dr. Acharya's monumental works have presented the literary side of the subject. Dr. Bhattacharya's 'A study on Vāstuvi ā' is a notable dissertation. This is only a very short notice of the previous writers on the subject. My attempt therefore here in this chapter is not to take notice of all these previous writers to make any advancement on the subject, but to co-ordinate their results in the context of my studies on the Vāstuśāstra to present the systematized canons of Indian architecture in a limited space so that the whole study may become a compact whole. This is rather very ambitious. Nevertheless an attempt is worth-making.

Origin of Indian architecture. Previous writers have posed questions on antiquity and origin of Indian architecture. But, I think, it is a needless attempt. Indian culture being historic rather than historical must baffile the attempt. Architecture, being one of the hall-marks of civilization, must have begun with the rise of civilization itself and the history of Indian civilization, its origin etc. still baffles us. The finds at Mohenjo-daro and Harrapa cannot be regarded as non-Indian. A very advanced state of architectural objects unearthed there consequently cannot be disregarded of their historical value. Ṛgvedic allusions and references to a very advanced state of architecture also cannot be called imaginary. Therefore how to surmise the origin is not only a problem but also a mystery, and modern rationalism is all against a mysterious approach. A scientific approach in relation to an architectural study must not be based solely on archaeological evidences. The literary evidences must have an equal importance in reconstructing our past history despite the absence of any archaeological evidence. Architecture as mirrored in the hymns of the Rgveda is a pointer. There are innumerable references in Ṛgveda which indicate a very advanced architecture of the day. A few hymns may be referred:

Rig. (Wilson)—IV. 148. 200; II. 313; II. 41.5; IV. 179; V. 62.6 etc. etc.

In the first Vasiṣṭha desired to have a three-storeyed dwelling (tridhātu-śaraṇam); in the second is the reference to a sovereign who

sits down in his substantial and elegant hall built with a thousand-pillars and the third alludes to residential houses with such pillars and said to be vast comprehensive, and thousand-doored and lastly in the fifth Mitra and Varuṇa are represented as occupying a great palace with a thousand pillars and a thousand gates. These are evidently spacious halls, the chief characteristic of which is abundant pillars. There are several expressions (cf. the one in the above quotations — 'tridhātu') in the Ṛgveda which have been explained by Sāyaṇa as referring to many-storeyed houses. Śaraṇam's is 'Tridhātu'.

Puras or towns and their fortification viz. words like 'Durgāni' 'Asmayāsī' 'Śatbhujī' in the following quotations would give you a picture of the strong cities or forts. Similarly there are good many references and allusions to so many other objects, a detailed notice of which will follow soon—cf. Rg. I. 58.8; 144.1; II. 20·8; IV. 27.1; 30.20 VIII. 3.7; 15·14; 89.8; 95.1 and cf. also "Some aspects of earliest history of India" by S. C. Sarkar p. 19.

Let us now peep into the finds especially connected with buildings as discovered in the excavations at Mohenjodaro and Harappa. 'The buildings discovered at the different strata at Mohenjo-daro may be classified under the following heads : (1) dwelling-houses, (2) public baths of religious or secular character, (3) temples of some kind, and (4) raised platforms, possibly tombs'. I am particularly interested in storeyed buildings and those serving as shrines or temples and I may take liberty to quote Dr. Acharya and Sir John Marshall in this context. Dr. Acharya says, "With regard to the existence of a temple, private or public, and of emblems for worship, Sir John Marshall appears to have been in fix. He can neither deny the implications of his own finds nor can he get rid of some kind of prejudice. Thus in the following quotation he appears to deny the very thing which he seems to believe: 'All this, however, is sheer conjecture. Like the Minoans, the Indus people may have had no public shrines at all, or if they had them, the shrines may have been wholly unlike their ordinary residences. Among the buildings of Mohenjo-daro are several whose purpose we have not yet succeeded in discovering, and any one of these might have been a shrine as well as anything else.' Then he refers to two buildings which bear all the essential features of a Hindu temple : 'There is the little building containing two chambers, one much larger than the other with a corridor at the side, and there is the larger structure, which comprises a large central chamber with a corridor on its western and southern sides, a well and two other small chambers as its southern

end, and a group of somewhat larger chambers at its northern, the original plan of which is obscured beneath latter accretions. Little, unfortunately, is left of this interesting ruin except its foundations, but these are unusually massive, nearly 10 feet deep with a solid infilling of crude brick, and presuppose a correspondingly high superstructure, which might very well have taken the form of a corbelled śikhara over the central apartment". 'One without a preconceived idea, but familiar with the common features of a Hindu temple, would feel no difficulty in identifying the above buildings as ordinary shrines, with a central room where a deity or an emblem is installed, with necessary side rooms and corridors, and finally, surmounted with a śikhara'.

'The inhabitants of Harappa appear also to have been in the hab't of offering in their temples erra-cotta cones, with or without figures of animals, of which several specimen have been recovered.' Rai Bahadur Daya Ram Sahni is inclined to think that 'a large cone of dark stone, 11 inches high resembling the Śiva-linga of modern times, must have been used for worship· Concerning the existence of the temples at Harappa, Sir John Marshall does not seem to have any doubt. Summarizing the account of Sahni, Marshall declares that the temples stand on elevated ground and are distinguished by the relative smallness of their chambers and the exceptional thickness of their walls—which suggest that they were several storeys in height. To a temple, also, doubtless belongs the spacious courtyard with chapels or other apartments on its four sides.

In the context of these observations there are several scholars notably Marshall, Chanda and others who surmise that inhabitants of Harappa and Mohenjo-daro were really the pre-Aryan, probably Drvidian people of India, known in the Vedas as Dasyus or Asurs, whose culture was largely destroyed by the invading Aryans. In corroboration of this surmise the onslaughts and exploits of Indra as described in the Ṛgveda are said to bring this surmise to a contention. It is said (Rg. 4. 30, 20) that Indra overthrew a hundred puras for his worshipper Divodas. If Ṛgvedic Aryans do not show any cultural influence of these pre-Vedic people on their mode of living and thought it was only natural because the animosity between the invading Aryans and the original inhabitants of India, including those of the Indus valley and farther south and the extreme east was of such a nature that the former destroyed all the towns, cities (pur, pura) and forts (durga) of the latter. There are some other scholars (cf. J. C. Ghosh, Indian culture—Vol. VI) who consider Vedic architecture as referred to, from many allusions in the hymns and the Yajus, as

fairly advanced and the strong cities or forts described in them, refer to those of the Asuras who may be identified with Assyrians who were certainly more advanced in their architectural traditions than the Vedic Aryans who were more foresters and villagers than citizens of big cities with ditches and rampart allround. Who knows these Assyrians or Asuras were really the inhabitants of Indus valley? This is what Brown rightly says, "On the one hand the inhabitants of the Indus region, as already shown, were mainly traders and town-dwellers, while on the other hand the Vedic people were of the country, wresting their living from the fields and forests. As far as is known the latter were originally nomads, an offshoot of an immense and obscure migration, who, on settling down in the plains of India, became partly pastoral and partly agricultural, having as their habitations rudimentary structures of reeds and bamboo thatched with leaves. It was not therefore from the fine houses forming the towns of the Indus civilization but from such temporary erections : s these, and the various simple expedients devised to meet the needs of the forest dwellers that Indian architecture had its beginnings. Its foundations were in the soil itself and from these aboriginal condition it took its development."

And we shall have an occasion to trace the rise and development of Indian architecture from these beginnings which culminated in what is called the Viśvakarmā school or Northern school of Indian architecture.

These Asuras were phallic worshippers and the allusions to the 'Śiśna-devas' or 'Mūra-devas' in the Ṛgveda also support the aforesaid hypothesis in view of the abundant material evidences found in the finds of Harappa end Mohenjo-daro. Rai Bahadur Daya Ram Sahni supports this conclusion - vide Archaeological Survey of India Report, 1924-25 p.74 (as already quoted cf. terra-cotta cones).

These Asuras or non-Aryans or Dravidians gave birth to what may be called Maya school of architecture and therefore the texts like the Mānasara and the Mayamata particularly the former may be taken to mirror and epitomise this school. The elaborations and advanced state of buildings, like Vimānas and Gopurams may be later interpolations as is usual in India with practically all classes of ancient literature, the Epics (especially the greater one) the Purāṇas and other allied classes of literature and therefore the ancient Śilpa texts, compiled long after the artistic traditions had got a foot-hold, could not remain isolated. They also grew and developed to mirror in them all the later phases of the evolution and development of art. And if

the Asura architecture is earlier than the Vedic art, we have no alternative but to recognize the earlier antiquity of Dravidian style. The paucity of finds and specimens of Vimāna-buildings as described in these texts cannot stand in our way to foımulate a working hypothesis. I shall have occassion to dwell at length on this problem in my treatment of the styles of Temple-architecture cf. pt. V.

Modern writers begin the history of Indian art from the Mauryan period. But the recent discoveries and other evidences have righly influenced writers like Dr. Fabri (a Hungarian scholar) to divide Art Movements in India in three chronological zones, 1st about 2600 B. C. when one encounters Indian Art during the period of Mohenjo-daro and Harappa, 2nd 18oo B. C , nothing is known of the period between 2600 and 1800 B. C. , owing to thousands of unexplored sites in Sind and Baluchistan, and the 3rd period beginning from 1800 B. C. starts the Aryan period and from 300 B. C. starts the period of Asoka when Indian art manifests itself at its highest form of expression The paucity of architectural remains in pre-historic times may be explained as being of secular character and thereby devoid of great durability. People live and die. Similarly buildings are raised and they also are buried in oblivion. The historic art, on the other hand, got a great impetus, for its development from the religious upsurge. In India, from the time of Asoka, religion supplied the motive power for Śilpa. If the Indian Śilipin had not obtained religion as the vehicle of Indian Śilpa, the marvellous development of Indian Art would have become quite impossible. Both Buddhism and Hinduism as well as Jainism were instrumental in the evolution and development of Indian Art. The famous lion-pillar of Sarnatha, the railings of Bharhut and pillars and gates of Sanchi, show what Buddhism has contributed to the development of Indian art and sculpture. The Gandhara School or Gupta School only gave expression to the Buddhist and Hindu religious ideals.

This is one way we have attempted a general introduction to the subject-matter in hand. There is yet another way, characteristic of Indian mode of treating the subject. Brahmā before creating this world, created Vāstu, and as I have already remarked elsewhere, Creation and Planning are twin sisters between whom planning may be deemed as the elder one. Any creation must proceed with planning before-hand, other-wise it is no creation. And what is the motive force to plan out first? It is essence of culture and civilization of mankind to raise itself from savagery to full manhood and if possible to godhood. Mankind, to evolve its perfection is given three principles- the Truth, the Beauty and the Good what may be techni-

cally termed the Satya; the Sundara and the Śiva. They are all interlinked to one another. Rise of art is due to the expression of innate ideas inherent in man and even from the most primitive times he has been trying to express them by different media and they have given rise to what we call arts like architecture and painting. If art is made to give expression only of the idea of Beauty, it cannot stand the test of ages. It must stand with truth. Truth and Beauty thus are both woven together. It is, therefore rightly said that Beauty is truth and Truth is Beauty. And a thing which is beautiful and also true must be good as well. This third element of goodness should not be viewed in the light of material happiness alone, its spiritual content is its real genesis. A mere glance at a beautiful object immediately transforms our self and plunges it in another world, the world of bliss which in the context of fine arts like painting and sculpture, is Paramānand which ennobles us and also refines us but in case of poetry and music it simply so overwhelms us that we forget our petty selves and free ourselves from the petty cares of poultry life and get plunged into a blissful state what we call Brahmānanda-svāda-sahodara. This is the aesthetic standpoint from which the origin and development of art can be viewed.

There is yet another standpoint which is also helpful in reconstructing the artistic history of India. It is the rise of cities and citizenships. Arts and crafts, pleasures and pastimes are best suited to an advanced corporate life where different professionals of art cater to the needs of citizens of rank. Royal courts and palaces have been equally rather more significant to patronise these artists and encourage them for better efforts and nobler creations. This is what Vātsyāyana teaches us in his Kāmasūtra. The traditional sixty-four arts, their rise and cultivation could be possible only in such an environment where youth and beauty have their full play. In Kāmasūtra, youth and beauty is the main theme. Youth and beauty are an embodiment of Kāma, the sensual love and this love is the real life which is the source of all activities and of all arts. Dr. Acharya also supports this: "Although the arts like architecture, sculpture, poetry and music had their origin in the religion of the Christians and the Hindus in connexion with the form of worship, which is based on love, these arts, along with the others (the catuṣṣaṣṭhi-kalās) became later entirely secular, and developed in various ways. In the Kāma-sūtra the arts have nothing to do with religion. Their object is neither salvation (mokṣa) nor ritualistic observances (dharma), but merely the gratification of material desires and sensual love. Cookery or perfumery, dancing or singing, painting or powdering,

jugglery or physical exercise, gardening or weaving is undertaken to earn money or to enjoy onself. This fact, as noticed above, has been repeatedly pointed out by the commentator Yaś ara. In fact, material desires and sensual love can be nourished only by those who consider themselves ever young and immortal, in other words, no artistic matter can be cultivated by those who are in the grasp of death and decay". This is the secular origin of Art, and I have given to it its due place in my 'Bhāratiya Vāstuśāstra'-'Puraniveśa'—Uttarapīṭhikā Ch. I. The story as related in Citralakṣaṇa in the context of the rise of painting also supports this hypothesis. But later on in India the development of the arts like architecture (especially the temple architecture) and iconography (both sculptural and pictorial) had their inspiration from the womb of religion as we shall presently show this.

Now resuming our lost thread—the planning and creation—this planning was entrusted to Viśvakarmā by no lesser an authority than the Pitāmaha, the Primordial creator Brahmā Himself. A patron king was required and there he was king Pṛthu. The Story of Pṛthu and Pṛthvi as related in our scriptures all depict this truth and bring out the rise of architecture in its proper perspective. We have already dwelt at it — the last chapter. This Viśvakarmā is our first Āchārya and the first Ārchitect. Architectural lore as propounded by him formed the nucleus of the subsequent treatises, the Viśvakarma-Vāstuśāstra or Śilpa-śāstra, the Purāṇas, the works like Bṛhatsamhitā of Varāhamihira and the Vāstu-texts like the S. S. and the A. P. We have already said something about another equally ancient and important architectural tradition of our land, the Maya school of which the Muni Maya, the Asura, was the first Āchārya and the first Architect. Let us therefore say a few words on Viśvakarmā and Maya who represent the duality of ancient āchāryaship of the Vāstu-lore in India.

Rise of the Śāstra and the place of Viśvakarmā: All our śāstras are associated primarily with one of our great gods Śiva, and Viṣṇu, but Vāstuśāstra has a unique position to have been transmitted equally by all the three supreme gods. We know that one of the aspects of Śiva is the Dakṣiṇāmūrti. This aspect of Śiva is always envoked by students of Arts and Sciences. Accordingly in the majority of the Vāstuśāstras, Śiva, who has also taught the traditional catuṣṣaṣṭhikalās, the 64 arts to Garga, is the source whence Vāstuvidyā, the science of Architecture is revealed (cf. V. P. 1.3-4; A. P. XCIX; the treatises of Maya, Kāśyapa, Mānasāra, etc. etc.) to Viśvakarmā. In another tradition (cf. V. P. XIII. 108; Br. S. and Iśānaśivaguru-

paddhati) it is Brahmā who is the source of the science and who revealed it to Viśvakarmā. In the third tradition (cf. Matsya Purāṇa) Viṣṇu in his Matsya Avatāra, imparted the science to Manu who passed it to the world through 18 preceptors like Bhṛgu, Atri, Vaśiṣṭha, Maya, Nārada, Śukra and Viśvakarmā etc. etc.—vide Vāstu-Lakṣ. There is yet another tradition very interesting as brought out in the Viṣṇudharmottaram. In the V. D. 111. LXXXVI-VIII, it is Mārkaṇḍeya, who instructs king Vajra in the science of architecture. Mārkaṇḍeya, according to the 'Hayaśīrṣapañcarātra I, 1-7, had received the science from Bhṛgu to whom it had been transmitted by Maheśvara (Śiva). Maheśvara had received it from Brahmā, and Brahmā from Viṣṇu as Hayaśīrṣa.

We are more concerned here with Viśvakarmā and in these accounts the position of Viśvakarmā is really not very sound. Viśvakarmā, as per our earlier tradition of Vedas and Brāhmaṇas, really represents the working aspect of the Supreme principle as Brahmā does the thinking aspect. Creator Brahmā could evolve only a mānasī sṛṣṭi. To give it shape and to lay it properly, in one word, to plan it beautifully was the work of an architect-āchārya and Viśvakarmā was there to fulfil the mission. Thus Viśvakarmā is a proper name, not only of a great architect, but every Sthapati is descended from Viśvakarmā. Correspondingly, the other three classes of craftsmen are born of Maya, Tvaṣṭṛ and Manu respectively, these four archetypal workers having originated from the four faces of Viśvakarmā, (Mānasāra II) whose descendents are respectively—Sthapati, Sūtra-grāhin, Vardhaki and Takṣaka. This is the ontology of the science in the context of its origin and the primordial preceptors.

The Rāmāyaṇa, IV. 51. 11 however takes Viśvakarmā, the architect of the gods what Maya is to the Asuras, as having revealed the Sthāpatya Veda and the rise of this Veda in the context of the traditional knowledge — Vidyāsthānāni — has alrady been referred to — vide the last chapter.

We have already remarked that in the Matsya-Purāṇa, as many as eighteen Professors of Vāstuśāstra have been enumerated among whom Viśvakarmā is rightly included. Viśvakarma-Prakāśa on the other hand enumerates some more Professors who are not common to the list given in the Matsya. It is stated that Garga expounded the Vāstuśāstra to Parāsara, who in turn expounded it to Bṛhadratha and it was from the latter that Viśvakarmā learnt all the principles of this Śāstra. Sanat-kumāra-Vāstuśāstra also adds some other names like Yama, Bhārgava, Gautama, Vyāsa etc. There are some other important references to Viśvakarmā especially to his geneology. P. A.

Mankad has very ably and labouriously attempted this geneology of Viśvakarmā and I am tempted to reproduce some of his more interesting observations here. According to Mankad, Viśvakarmā's geneology as culled from the Puranic tradition takes him back to king Vena otherwise known in Sumerian Civilization as Oannes of Berossus. As per the different and divergent hypotheses of V. R. Karandikar and Rev. H. Heras, the former holding Narmada valley as the cradle of the human civilization and the latter, on the contrary regarding Indus valley as the most ancient civilization of Asia, Sri Mankad takes his clue to formulate a theory that Viśvakarmā formed, so to say, a connecting link between the Sumerian Civilization on the one hand and the Narmadā valley culture on the other. The 53rd chapter of Śivapurāṇa — Dharma-Saṃhitā gives an interesting and a lengthy account of the geneology of Viśvakarmā (vide P. A. Mankad's Introduction to Aparājita-prachhā (p. LXXXIX) where it is related that Dakṣa Prājapati had sixty daughters ten of these were given in marriage to Dharma. Among these ten the 2nd one, Vasu gave birth to 8 Vasus— Dhara, Dhruva etc. Prabhāsa, the last of these 8 Vasus was the father of Viśvakarmā and the Samarāṅgaṇa also testifies to it:

यच्च ते स्यादभिप्रेतं स्थानादिविनिवेशनम् ।
तदेष त्रिदशाचार्यः सर्वसिद्धिप्रवर्तकः ॥
सुतः प्रभासस्य विभोः स्वस्रीयश्च बृहस्पतेः ।
विख्यातिशाखिधीः सर्वं विश्वकर्मा करिष्यति ॥

'The Vasus were mostly workers in different branches of art, as has been described under Vasu. Viśvakarmā naturally had imbibed skill in craftsmanship from his father's side. It may be mentioned that he was connected with the Bhṛgu family by his mother' side, as Prabhāsa Vasu had married the sister of Bhṛgu.

E. Sieg in the Encyclopaedia of Religion and Ethics explains the word Bhṛgu as a term for craftsman. According to Dr. Hermann Weller, Bhṛgus represented originally the craftsmen working with fire among whom were included primarily the blacksmiths and chariot-builders. The silver war-chariot of the heroic Bhīṣma is ascribed to them.

Viśvakarmā's connection with Bhṛgu was thus no less responsible for the high state of excellence in craftsmanship peculiar to the family of Bhṛgus. Both his parental and maternal relationships contributed in equipping him with a rich heritage. It was his skill as an artificer that made him an outstanding personality among the Vasus.

Now this Prabhāsa (eminently shining) Vasu had married the sister of Bhṛgu and through her a son named Viśvakarmā was born to him. This Viśvakarmā was endowed with consummate skill in fine arts, architecture, sculpture, painting, including both their constructive as well as decorative aspects. He was an excellent craftsman as he had constructed conveyances moving on land, sea and air. He was an expert in designing weapons of various kinds to minister to the comforts, convenience and safety of men. These and other qualities have rightly won for him the epithet commonly attributed to him-viz. the architect of gods, and naturally it would not, on that score, be absurd at all, if an inference is held out that it was his parentage that was responsible for the rich heritage which he came to inherit. Most of these Vasus, as might be inferred from the above, were the artificers in ancient times. They occupied a very respectable position in the society in ancient India.

"From the Vedic times, Indian civilization had at its disposal the services not only of the carpenter, the wheelwright and the blacksmith, of the potter, the weaver and the fabricators of objects of prime necessity but also of those whom we call art-workers, painters, goldsmiths, carvers in ivory or wood etc." (Beginning of Buddhistic Art by M. Foucher). It was the family of these Vasus or their progeny who applied themselves to these various crafts-branches of art and, so naturally, these art-workers-artificers in a wide range of arts, were brought under the category of the term Vasu. It must be admitted that it is diffiicult to differentiate the functions of these 8 Vasus individually. The information regarding them is too meagre to base sound deduction upon. Some names of these Vasus, for example, आप: (water) अनल (fire) अनिल (wind) might obviously suggest that the one had to deal with hydraulic works, another with such arts as required the handling of fire etc., a third with air transport and so on, but it must be admitted frankly that nothing definite could be ascertained regarding all of them. देवल son of प्रत्यूष was one of the law-givers in India and also a recognised referee in matters of संगीत (vide गजेन्द्रमोक्ष).

The inference as regards the function of these Vasus based on the constructive genius of Viśvakarmā,—that the Vasus were artificers in different spheres of life is not without a further corroborative evidence. The term वसवाया, in Gujarati, derived of course from Vasu is not only suggestive but offers a clue as to the function of these Vasus. The term वसवाया as it is understood to connote, even at the present day, in Gujarati, includes a few artificers and art-workers, in its contracted sense, such as potters, carpenters, masons, blacksmiths, etc. A closer

study, moreover, reveals that the term had a very broad significance, as it embraced a wide range of workers-fabricators of objects of prime necessities required in the ceremonials of the Hindu society. It may be added that the marriage ceremonials of the नागर ब्राह्मण at least, in Kathiawar, even upto the present day have upheld tne respectable part played by these art-workers वसवाया'.

This long digression on Viśvakarmā was necessitated to refute Dr. Bhattacharya's lengthy surmises that there were two Viśvakarmās one of the North and the other of the South (see detailed discussion in his book)· Viśvakarmā by this account represents both the traditions or schools of Art and Architecture not only of India but of the whole Asia. And we have to guard ourselves in our studies on Viśvakarmā to clearly distinguish between the writers Viśvakarmā and the Founder Architect Āchārya Viśvakarmā. Confounding both and making an attempt to trace several Viśvakarmās is not a happy dissertation. Indian writers never cared for their glory of the self, they very much cared for the glory of the race or more properly that of the nation. Viśvakarmā is our National Architect and as our nation-hood was evolved on the bedrock of the admixture of two great cultures, one purely material and the other grandly spiritual, what we call Asurī sampadā and Daivī sampadā, it was but natural that the Founder Āchārya had imbibed in himself those requisite features which were characteristic of both the great races, the Aryan and non-Aryan. You could not have a better cosmopolitan culture as this. Our Śāstras and Purāṇas surely had this mission, the single purpose, in their view. Hence these allegorical accounts what you call myths, nevertheless, are expounding the true history. Accordingly the latter compilers of the different Śāstras and Itihāsas and Purāṇas, never cared to reveal their authorship, they passed it to those famous as Founder Āchāryas like Vyāsa, Viśvakarmā and Maya. Moreover, transmission of knowledge in India or in any other part of the world in those hoary days could not be done regularly and methodically through writings It was an oral transmission which was perfectly preserved and carried through a long line of gurus, and their śiṣyas. It was more characteristic in India. Hence any grappling with identifying a particular book with a particular name is always beset with insurmountable difficulties. Sometimes these attempts become preposterous and non-sense. The evershining (Prabhāsa) culture is our true guide. Naturally therefore a host of books (as many as seventeen—vide Dr. T. Aufrecht's catalogus catalogorum) ascribed to Viśvakarmā is understandable.

Maya. Let us now pass on to Maya, the Founder Architect Āchārya of the so called Drāvidian Vāstuvidyā or school of Architecture. He is one of the eighteen professors of Architecture as mentioned in the Matsyapurāṇa. His position in the tradition is second only to Viśvakarmā. The Mānasāra, the most representative text of Dravidian architecture recounts the origin of Maya from one of the faces of the four-faced Viśvakarmā, which in the context of the accounts of Viśvakarmā representing both the cultures is perfectly in keeping with the traditions. That Maya school of Architecture was certainly different and distinct a tradition is proved by the earliest datable (550 A.D.) work on Vāstuśāstra, the Bṛhatsaṃhitā of Varāhamihira where Maya and Viśvakarmā are quoted as authors whose seemingly different statements have the same meaning. The many names of eighteen chief preceptors (ācāryas), seem to indicate an equal number of branches, or schools of Indian architecture prior to the sixth century A. D. and subsequently in Kiṣkindhā Kāṇḍa of Rāmāyaṇa (chap, 51) there is an interesting reference to Maya. It is told there how Maya acquired the knowledge of Śilpaśāstra, the Science of architecture, treasure Uśanas (Auśanasam dhanam) from Brahmā. This shows that the treatises of Maya and Uśanas i. e. Śukra were alike in character. And as both belong to Asuras they represented a school of their own. In the Mānasāra Viśvakarmā is described as the son of Brahmā and husband of Indra's daughter. This is really something very confounding and how to reconcile this description with the one in which Viśvakarmā is regarded as the son of Prabhāsa Vasu ? It seems that Viśvakarmā of Mānasara also belonged to a very distant epoch in history. Brahmā was the foremost invader and settler in India and the Viśvakarmā, referred to in the Mānasāra was the architect who helped his (Brahmā's) colonists propogating his lore and acquiring theirs as well. Viśvakarmā's advent on earth to plan out habitation of men in the Samarāṅgaṇa-Sūtradhāra also supports the above genesis and this throws a flood of light on the amalgamation of the Aryan and non-Aryan elements of culture in such a distant past as we have already adduced it from the geneology of Viśvakarmā with especial reference to Vasus.

In the Mahābhārata, Viśvakarmā and Maya are mentioned, not as writers but as master-masons of the Gods and the Dānavas respectively. Viśvakarmā is said to have been the "master of thousand arts, the Vārdhakī (carpenter) of the gods and superior to all architects." He also constructed the chariots of the gods. Men earned their livelihood by practising the arts invented by him and offered worship to Viśvakarmā (I. 66. 29-31). Viśvakarmā constructed the Sabhā of

Vaivasvata (II. 8. 1) and a town, for the gods, besides a, statue, a necklace and wheels of the chariots, for them. Maya calls himself the Viśvakarmā of the Dānavas. He constructed the magnificent assembly hall of the Pāṇḍavas from the materials collected by him from the kingdom of the Dānava king Vṛṣaparvā, situated to the north of Kailāśa near the Vindu-lake and to the north-east of Indraprastha (II. 1. 5.). We have already said that Maya is known as Danava and to have learnt the science of architecture from Śukra, the preceptor of Dānavas. Viśvakarmā and Maya represent the two schools of Indian architecture, known as Nāgara and Drāviḍa. Dr. Bhattacharya has elucidated this subject very elaborately and the readers are referred to, to read that book for details. Want of space forbids me to go in those details not very essential from my standpoint. So far the central thesis round which we have been labouring in the foregoing pages is now not difficult to establish that in the rise of Vāstuśāstra, as the science and art, two traditions have contributed to its evolution and growth. These are Viśvakarmā and Maya traditions. Now the question is what are the distinctive points which differentiate these two traditions? This question need not be dwelt upon at length here as we shall get occasion to do that—vide Pt. V—styles of Temple architecture. Here, in brief, it may be said that these two and others may be taken to represent as many variations as lay within the fundamental purpose of the temple which has been chief creation of Hindu science of art and architecture. Dr. Kramrisch supports this thesis: 'The merit of the works of the schools which made it seem worth while to record the names of their most eminent preceptors lay in the manifold and ever varying solutions of their central purpose. This was the setting up of the Prāsāda as Vimāna, proportionate in its parts and directing the form and measure of all other buildings which accrued in the service of the Prāsāda.' And I have already remarked that the Vimānas, characteristic of Āsura architecture were really the precursors of the Prāsāda, the Nagara temples. The characteristic planning and laying out the super-structure, the Bhūmis etc. and the ornamentative motifs like Āmalaka and Stūpikā etc. are some of the broad features in respect of which these two traditions have laid down their rules for the guidance of the architects in their respective domains of the styles of temple-architecture along with its component structures like columns, roofing, superstructure and its crowning part.

Other Archārya: There is a long line of the preceptors of Vāstuśāstra as referred to in the different sources like Matsya-Purāṇa, Agni-Purāṇa, Bṛhatsaṃhitā, Mānasāra, Sanatkumāra-

Vāstuśāstra and Viśvakarma-Vāstuśāstra. My predecessor Dr. Bhattacharya has discussed this subject in great details and I have no inclination to enter into the details as most of the matters discussed by the learned author of 'A study of Vāstu Vidyā or canons of Indian architecture' are very much disputable, especially the identity of two Viśvakarmās, two Mayas and the late date of the Mānasāra, Kāśyapa-śilpa etc. etc. The controversy is not very much desirable either, here in this context of my presentation of an outline history of the science. For the sake of completeness, however some remarks are called for. Let us first take the names of these ancient Āchāryas as per the authority of the different texts:

(i) **Matsyapurāṇa :**

1. Bhṛgu
2. Atri
3. Vaśiṣṭha
4. Viśvakarmā
5. Maya
6. Nārada
7. Nagnajit
8. Viśālākṣa
9. Purandara or Śakra
10. Brahmā
11. Kumāra
12. Nandīśa (Śambhu)
13. Śaunaka
14. Garga
15. Vāsudeva
16. Aniruddha
17. Śukra
18. Bṛhaspati and
19. Manu

(ii) **Agnipurāṇa:**

N.B. Here are enlisted not the preceptors but their works, the Tantras passing by their names; hence these names as authorized by the Agnipurāṇa itself are to be reckoned as the preceptors of the Śāstra in its better and more fuller connotation (ie. Tantra is Science specially the science of the Philosophy of the ritual and the metaphysics connected with Arcā, Arcya, Arcaka and Arcā-gṛha):—

1. Hayaśīrṣa
2. Trailokyamohan
3. Vibhava (Vaibhava Tantra)
4. Puṣkara (Pauṣkara T.)
5. Prahlāda (cf. Prāhlāda T.)
6. Garga (cf. Gārgya T.)
7. Gālava
8. Nārada (Nāradīya T.)
9. Sampraśna
10. Śāṇḍilya
11. Viśvaka (Vaiśvaka T.)
12. Satya (Sātya T.)
13. Śaunaka
14. Vaśiṣṭha (cf. Vāiśṣṭha T.)
15. Jñānasāgara
16. Svayambhu (Svāyambhava T.)
17. Kapila (Kāpila T.)
18. Tārkṣya
19. Nārāyaṇa (Nārāyaṇika T.)
20. Atri (Ātreya T.)
21. Narasiṁha (Nārasiṁha T.)
22. Ānanda
23. Aruṇa (Āruṇa T.)
24. Bauddhāyana
25. Ṛṣi (Ārṣa).

N.B. Six of these names (nos. 6, 8, 13, 14, 16 and 20) may be said to be common to those mentioned in the text of the Matsyapurāṇa.

(III) Bṛhatsaṁhitā:

1. Parāśara, 2. Kaśyapa and 3. Bharadvāja etc.

(IV) Mānasāra: (cf. LXVIII)

1. Viśvakarmā	12. Mānasāra	23. Pārāśariyaka
2. Viśveśa	13. Prasṭṛ	24. Kālayūpa
3. Viśvasāra	14. Mānabodha	25. Caitya
4. Prabodhaka	15. Viśvabodha	26. Citraka
5. Vṛta	16. Naya	27. Āvarya
6. Maya	17. Ādisāra	28. Sādhakasārasaṃhitā
7. Tvaṣṭṛ	18. Viśāla	29. Bhānu
8. Manu	19. Viśvakāśyapa	30. Indra
9. Nala	20. Vāstubodha	31. Lokajña and
10. Mānavit	21. Mahātantra	32. Saura
11. Mānakalpa	22. Vāstu-vidyāpati	

(V) Sanat-kumāra-Vāstuśāstra:

1. Brahmā	5. Aṅgirasa	9. Vyāsa
2. Indra	6. Gautama	10. Bhṛgu
3. Yama	7. Gārgya	11. Viśvakarmā
4. Bhārgava	8. Manu	etc. etc.

(VI) Viśvakarma-Vāstuśāstra:—It refers to the ancient authorities, the Pūrva-Sūris at several places. In the first list (in the context of Māna) they are Guru (Bṛhaspati), Maghavā (Indra), Nandī and Nārada. The second list is more informative and here are listed as many as the following fifteen Vāstuśāstra-Pravaktās; some of whom are not very familiar names:

1. Agastya	6. Kaśyapa	11. Pālakāpya
2. Nandī	7. Lokadarśaka	12. Puṇḍarīka
3. Nārada	8. Kātyāyana	13. Dīrghadarśī
4. Bṛhaspati	9. Mārīci	14. Punarvasu and
5. Timyaloka	10. Citratoyaka	15. Yogasāra

There is yet another list of the ancient preceptors in this text, though not in connection with the Vāstu-lore, but with the weapons and their allied Mantra-śaktis etc. They include such names as Atri, Vaśiṣṭha, Pulaha, Kāśyapa, Bhṛgunandana, Mārīci, Cyavana, Kaṇva, Viśvāmitra, Nārada, Vālakhilya-branda, Lokadarśaka, Dīrghadarṣī Kundaroma, Gālava, Pañcavāraka, Bhāradvāja, Kṣatrapāla, Keśika Madhusūdana, Sudarśana and Piṅga. These are the great sages 'Svara-śakti-kriyā-koṭidhvani-tādyupadeśinaḥ'.

All these great teachers cannot be said to be legendry. Parā and Aparā, both the Vidyās used to be propagated in ancient India. No nation can flourish without its care for its material prosperity. All this technique and training and their systematic and successful teaching and transmission were of equal importance. Most of the treatises of Vāstuśāstra carry many of these names, yet a good many of them are quoted as authorities, yet still others are honoured with actual passages being quoted from their works. The following tabulation may help us in our estimation of these authorities:

A. Names associated with the treatises :

1. Atri: Samūrtārcanādhikaraṇa or Ātreya-tantra.
2. Viśvakarman: associated with several treatises (see ahead)
3. Maya—Mayamatam
4. Nārada—Nārada-Vāstu-vidhāna and Naradaśilpaśātra
5. Śukra—Śukranītisāra
6. Bhṛgu—Vaikhānasāgama
7. Nagnajit—Citralakṣaṇa
8. Kaśyapa—Kāsyapa-śilpa
9. Agastya - Sakalādhikāra
10. Prahlāda—Prāhlāda-tantra
11. Mārkaṇḍeya—Purāṇa, Tantra & Vāstuśāstra
12. Mārīci—Vaikhānasāgama

B. Names cited as authorities in:

1. **Bhṛgu**—Śilparatna, Viśva. Śilpa, Atrisamhitā & Vāsturatnāvalī
2. **Atri**—Bṛhatsamhitā of Varāhamihira and Agnipurāṇa
3. **Maya**—Br. Sam. and Īśānaśivagurudevapaddhati
4. **Viśālākṣa** - Arthaśāstra, Mānasāra, Agni & Devī Purāṇas
5. **Purandara**—or Śakra—Br. Sam., Mānasāra and Śilparatna
6. **Kumāra**—Śilparatna
7. **Śaunaka**—Agnipurāṇa & Rājamārtaṇḍa-saṁgraha of Varāhamihira.
8. **Garga**—Br. Sam., Viśvakarma Pr. and Sanatkumāra-Vāstuśāstra
9. **Vāsudeva**—Viśvakarmaprakāśa
10. **Śukra**—Śilparatna, Viśvakarmaśilpa and Br. Sam.
11. **Bṛhaspati**—Br. Sam. and Mānasāra
12. **Manu**—Br. Sam, Mānasāra and Viśvakarma-prakāśa
13. **Parāśara**—Viśvakarmaprakāśa, Mānasāra & Śilparatna
14. **Kāsyapa**—Mānasāra, Śilparatna & Atri-Samhitā
15. **Agastya**—Śilparatna & Mānasāra
16. **Mārkaṇḍeya**—Hayaśīrṣapañcarātra and Viṣṇudharmottaram

17. Nārada—Agni P. and Mānasāra
18.. Naganjit—Br. Sam and Citralakṣaṇa
19 Nandīśa—Br. Sam. (commentary)
20. Śukra—Br. Sam. Commentary and Nāradaśilpśastra
21. Bṛhaspati—Br. Sam. Commentary, Nāradaśilpaśāstra, Devī-purāṇa and Mānasāra

C. **Names, the passages from whose works are quoted :**

1. **Bhṛgu**—Vāsturatnāvalī, Śilpasamgraha and Hayaśīrṣapañca-rātra.
2. **Vaśiṣṭha**—Raghunandan's Vāstuyajñatattva and Vāsturatnā-valī
3. **Viśvakarmā**—Bhattotpala's commentary on Br. Sam.
4. **Maya**—Bhattotpala, Iśānaśivaguradevapaddhatī and Śilparatna.
5. **Nārada**—Raghunandana's Maṭhapratiṣṭhā and Vāsturatnāvali
6. **Nagnijit**—Bhattotpala's commentary on Br. Sam.
7. **Purandara**— ,, ,, ,, ,,
8. **Brahmā**—Brahmaśilpa quoted in Śilpasamgraha, Brāhma-Yāmala (ibid) and Pitāmaha in Īśāna.
9. **Nandīśa**—(Śambhu) Vāsturatnāvalī
10. **Śaunaka**—Raghunandana's Jalāśayotsarga
11. **Garga**—Bhattotpala's commentary
12 **Bṛhaspati**—Bhattotpala's
13. **Parāśara**—Bhattotpala's & Iśāna
14. **Kaśyapa**—Bhattotpala's
15. **Bharadvāja**—Bhattotpala's

This tabulation is very interesting at least from one point of view; it gives you to understand the unique place of Bṛhatsaṃhitā's celebrated commentator in reconstructing our art history. Bṛhatsaṃhitā is the earliest datable work and its commentary by Bhattotpala is a land-mark in our architectural history. Unless these ancient authorities were very popular and a flourishing tradition how could they have got a place in an early commentary on a standard text on the subject? Secondly to determine their respective chronology is very difficult of solution and a concentrated research is called for. Most of the manuals of Vāstuśāstra, the science of Architecture, are records of oral traditions which go back to undefined past. Some of them like Bṛhatsaṃhitā, Viṣṇudharmottaram are datable works and the references to these authorities in such works are very valuable for reconstructing the relative chronology. Similarly Viśvakarma-prakāśa may be deemed as a datable work. Dr. Kramrisch conjectures, (H.T. p. 425) "If the name of Bṛhadratha, in the Viśvakarmaprakāśa could be taken to

refer to the last Maurya king of that name, the Viśvakarma-Prakāśa would thereby show its teaching established in Eastern India before 184 B.C". As regards other treatises, the dates of which are approximately certain, are later works e.g. Śilparatna, Tantrasamuccaya, Aparājita-pracchā, Samarāṅgaṇa Sūtradhāra etc.

Dr. Bhattacharya has also taken pains to make an attempt to locate these early authorities of Vāstuśāstra to their respective schools, the Drāvida or the southern and the Nāgara or the Northern. But as per the above thesis (cf. Viśvakarma's role in both the traditions) this watertight allocation is difficult for establishment. More concentrated, critical and objective study is needed to formulate any workable hypothesis. For information's sake however, his conclusions regarding the allocation of these āchāryas to the principal schools of Indian architecture may be noted in brief:

Āchāryas of the Dravidian or Southern School:

1. Brahmā
2. Tvaṣṭṛ
3. Maya
4. Mātaṅga
5. Bhṛgu
6. Kāśyapa
7. Agastya
8. Śukra
9. Parāśara
10. Nagnajit
11. Nārada
12. Prahlāda
13. Śakra (Purandara)
14. Bṛhaspati &
15. Mānasāra

Āchāryas of the Nāgara or Northern school:

1. Śambhu (Nandīśa)
2. Garga
3. Atri
4. Vaśistha
5. Bṛhadratha
6. Viśvakarmā and
7. Vāsudeva

N.B. The details may be seen in Dr. Tarapada's work.

Vāstu literature:

Incidently some remarks are now needed to deal with the Vāstu literature and tabulate their names and contents only as a detailed review and the presentation there of, of the Principal or the most representative texts have been reserved for the subsequent chapter. This Vāstu literature may be conveniently classified into as many as the following classes of literature :

(I) Vedic literature—Saṁhitās, Brāhmaṇas and Sūtras
(II) Epic literature
(III) Buddhist literature—Jātakas and Pāli canons
(IV) Arthaśāstra
(V) Purāṇas
(VI) Āgamas
(VII) Tantras

(VIII) Bṛhatsaṃhitā
(IX) Pratiṣṭhā works
(X) Miscellaneous works and
(XI) Śilpa works.

Dr. Acharya divides this whole Vāṅmaya, into only two broad sub-divisions, the architectural proper and non-architectural adjuncts, in the latter will fall all the lore that is expounded in Purāṇas, Āgamas, Tantras and the Pratiṣṭhā works etc. For the conveni nce however, this seems to be more systematic and workable as most of the Purāṇas like Viṣṇudharmottaram almost exclusively deal with Vāstuśāstra (in its broadest connotation the Vāstu, the Śilpa and the Chitra). Similarly Āgamas like Kāmika devotes almost all its main Paṭalas to the exposition of the Vāstu as we presently see. Incidently it may be remarked that miscellaneous works like Epics, Jātakas and classical Sanskrit works like Bāṇa's Kādambarī do not deal (and cannot be expected to deal) with any set of principles of the science, rather they embody artistic culture and the current traditions behind them which give an idea of the condition of the art and its science. Hence these works are also helpful in our study of this subject.

Vedic literature : This is a vast literature comprising Saṃhitās, Brāhmaṇas, Āraṇyakas, Upaniṣads and Vedāṅgas (the Sūtra works) etc. etc. Among the Saṃhitās, Ṛgveda comes first and it is the earliest literary document in world history. Hence any clue to architectural traditions of the past in this Veda is very helpful for our present study.

Architectural traditions in the Ṛgveda : Ṛgveda hymns (VII. 54-55) invoke Vāstoṣpati as the special deity supposed to preside over building sites. Different explanations of Vāstoṣpati have been offered by different commentators. According to Devarāja Yajvā, Vāstu means the Antarikṣa and Vāstoṣpati indicates all heavenly deities which rightly fits in the later development of Vāstu-puruṣa whose different limbs constituted the abodes of the different deities as many as forty five (cf. the next chapter "Fundamental principles of Hindu science of Architecture"). Architecture in India came to be intimately associated with religion. Naturally its ritualistic origin and evolution may be taken as an established canon. Vāstoṣpati is identified with Indra. He is also identified with Tvaṣṭṛ, the carpenter of the gods. Viśvakarmā is invoked as the Creator of the universe as a whole (X. 6 and 13-14)

which very well fits in our concept of Viśvakarmā as the primordial planner and architect-creator. Similar references to Ṛbhus (disciples of Tvaṣṭṛ) and Vasus (the givers of dwellings) are also important—vide the geneology of Viśvakarmā, treated in the foregoing pages. In another hymn (1. 32. 2)Tvaṣṭā is said to have sharpened (Takṣa) the thunderbolt of Indra. This gave rise to what we know of Takṣaka as carpenter in later times. Yet in another hymn (vii. 33. 13) the birth of 'Māna' is referred to, and 'Māna' according to no lesser an authority than Sāyaṇa himself was another name of Agastya. This 'Māna' may be said to have given rise to two important traditions of Indian architecture--Mānavid, the Sūtragrāhin and Mānācārya Agastya one of the earliest authorities of Vāstu-vidyā.

References to Tvaṣṭā, the carpenter and his craftmanship in wooden and metallic crafts (X. 48) are sufficient proof of early architecture as wooden architecture, when wood was the chief material for constructing a building. The words like 'Harmyas' occurring frequently in the Ṛgveda (V. 32. 5, VII. 55. 6, 56. 16, 76. 2, IX. 71. 4, 78. 3) give you a clue for special kinds of buildings. The references to Puras and their fortification are already taken into consideration. The references to gorgeous and pillared halls and mansions (whether in the context of the gods and Ṛṣis or the Asuras) have also been hinted at. References to pillars and their shapes (1. 59. 1, III. 31. 12, IV. 5. 1) abound through: Sthūṇa, Stambha, Skambha or Viṣkambha are several names of pillars referring to both free standing pillars and supports. We are familiar with the Yūpa, the sacrificial post.

Burial mounds have also been referred to—Mṛṇmayam Gṛham (VII·89). Articles of furniture 'talpas' (VII. 55. 8.) and 'prastaras' etc. are also mentioned. All these details pertaining to buildings—towns, halls and storeyed mansions and the articles of furniture have been ably worked out by Dr. Acharya and Dr. Bhattacharya—vide their works H. A. I. & A., and A study of Vāstu-vidyā or Canons of Indian architecture respectively.

Thus from the standpoint of the architectural history of our land, the Ṛgvedic references are helpful in our surmise that the Non-Aryan or Āsura school of Indian architecture was well established and even the Aryan school had already passed the primitive stage. Māna and Tvaṣṭṛ in later periods were regarded as master architects particularly associated with the Drāvida school. Nagnajit, an architect and the Āsura king of Gāndhāra is said to have lived in Ṛgvedic period —cf. J. C. Ghosa's article in Indian culture Vol. VI.

Later Vedas and Brāhmaṇas: The later Vedas and Brāhmaṇas present a picture of more a religious architecture than the civil one a glimpse of which was found in the Ṛgveda. The Śukla-Yajurveda's (cf. chap. 35) description of the Śmaśāna (funeral mound) gives an idea of the prototype of the Indian stūpas so popular in later art. The Kṛṣṇa Yajurveda contains numerous hymns relating to the Yūpa (1.3., VI. 3 etc.) and in these descriptions symbolic expressions and presentations thereof abound. Dr. Bhattacharya rightly says (ibid. p. 25): 'If Yūpa be taken as the prototype of Indian pillars, we must try to show how far the decoration carved on the pillar conformed to this description in the Veda The shafts of many extant pillars from the base up to the girdle contain human figures, and girdles are generally decorated with leaves. The top of the Yūpa might have contained the figure of the god worshipped (in the Vedic period, perhaps a figure of Indra, the greatest of the gods). Later on this part of the Stambhas or Dhvajas set up in front of a temple contained a figure of the Vāhana or the vehicle of the god as for example, Garuḍa, the Vāhana of Viṣṇu, the Bull of Śiva and so on The parts above the top, the entablure, belonged to the Sādhyas and we find the entablures generally decorated with flying figures, the Sādhyas of the Vedic texts.

The Atharvaveda is more informative in the subject. The Śālā Sūkta is very helpful in reconstructing our history of residential houses It also contains many architectural terms. 'Vanśa' (beam) above the Sthūṇa (post) and the 'upamit' the, 'pramit' of a śālā. This Veda further refers to houses, of varying shapes and sides, some being two sided, others four-sided, six-sided, eight-sided and ten-sided. The Ṛgveda refers to 'a lord of the house,' (Vāstoṣpati); whereas the Atharvaveda refers to a "Mistress of building".

A peep into the house-hold furniture furnishes us the then condition of civil art and architecture also. The 'āsandī and paryanka' the two words (Vaj. Samh. of Yajurveda XIX. 86; XX. I) are typical of our surmise.

The Brāhmaṇas preoccupy themselves with the elaborate descriptions of various religious structures the Yūpa, the Vedi and the Śmaśāna. The word 'Śilpa' and its traditional knowledge occurs in the Aitareya Brāhmaṇa (VI. 5. 27) which in the Kauśitaki Brāhmaṇa (XXIX. 5) is said to be threefold, dancing, music and singing. Sculpture can also be inferred to, from the Brāhmaṇas (see my Vāstuśāstra Vol II). Sacrifices are the main topics of Brāhmaṇas, in which the construction of sacrificial altar what is called 'Citi' is an

important item. Hence we can very well conjecture that the use of bricks in ancient India especially in later Vedic and Brāhmaṇa period could not have been limited to sun-dried bricks. The bricks used in the Citi got burnt in the sacrificial fire and must have taught Indians the technique of burnt-bricks. Dr. Bhattacharya supports this: "The construction of the Śmaśāna (Burial mound over the ashes or the bones of a dead man) is described in detail in the Śatapatha Brāhmaṇa (XIII. 8. 1. 4.) which, supplemented by the Ṛgvedic and Yajurvedic verses already referred to, gives us a clear idea of the earliest form of the Indian Stūpa. The Aryan Stūpas were four-sided; the non-Aryan ones were round. Square Hindu Stupas have been found in India. The Hindu Stūpa rested on earth, whereas the Āsura Stūpa was erected on a base. The mound was then enclosed by a stone which perhaps indicates the stone casing or the rails round the Stūpas. Pegs were fixed on the four sides, which might have given rise to the custom of erecting a pillar on each of the four cardinal points around the Stūpa. (Vide "Origin of Indian Architecture"). The description occurring in the Śatapatha Brāhmaṇa further indicates the influence of Āsura architecture on Aryan or later Indian architecture.'

Sūtras: The Sūtra literature contains a treasure house for Indian Art. They are our earliest Vāstuśāstras. The Sūtra works like the Śāṃkāhyana Gṛhya Sūtra and the 'Āśvalāyan Gṛhya Sūtra devote as many as three chapters each on house building rules. Though they deal with elaborate ceremonials pertaining particularly to the central post, they do embody several principles of Indian architecture. The S. G. S. (III) in its symbolic language describes the different parts of the central pillar and the ceremonials attached to them. These ceremonials furnish important data for the proper understanding of Indian architectural principles. It is to be noted that the centre of ground was held in high reverence. It was there that the first necessary rites were to be performed and the chief post fixed. The existence of the central post and the importance ascribed to it in the Sūtras indicate that the earliest house of the Aryans, of a time when these ceremonials came into vogue, was one with a pillar in centre, on which the stability of the house depended.

In the Sūtras of the Gobhila and the Khādira other principles of the site-selection viz. the shape (quadrangular or circular) etc. as well as the position of the door and trees to be fixed in the house and around it respectively are also elaborated. These are the systematic subject-matters of the Vāstu-texts. The offerings (balis)

like Viśvakarmā (nos. 483, 489 etc.) Māya, Bhṛgu and Agastya were early authorities contemporary even of the Vedic and pre-Vedic age. Technical words like 'Bhūmi' and the technical designations of the Prāsādas (nos. 541 and 558) also occur. Jātaka no. 489 describes a Pannasālā from which we can visualise a very early tradition of Śālā-houses, as described in the Purāṇas (Mārk:) and the Śilpa-texts like the S. S. Town-planning as envisaged in the epics has been a stereotyped tradition—walls, ramparts and ditches fortifying them. Royal residences like 'Prāsāda' and 'Vimāna' were also there. More technical structures like an underground tunnel is copiously described under an 'ummaga' in jātaka no. 546. Devakulas and Cityas or Chaityas have also found a place of honour in them. The chief material being wood continues here also. Wood-carving, wood-painting and paintings on wall, appear to have been fairly in vogue, as is evident from the 'Ummaga' jātaka. Stone-architecture, a Nāga-element in Indian architecture, also appears to have been introduced—'Pāsāda ettha Silāmaya'—jātaka no. 545; udukhala Pāsānam—no. 514; throne of yellow marble—no. 519, Giri-durga or hill-fort—no. 516 and stone-cutter (Pāsānakoṭṭaka) and stone-pillar (Silāthambam) in J. No. 476 are clear indications. In one story (479) the Bodhisattva himself is said to have been a stone-cutter by birth. 'References to crystal palaces (Phalika Pāsāda—Sphaṭika-Prāsāda—cf. no, 378) also occur. The Piprawa casket was a finished article in crystal. Its perfection of construction evidently indicates extraordinary constructive skill which must have been the result of age-long practice. In the Vinaya rules, we find that the Buddha allowed his disciples to make use of stone not only in the basements of their halls, stairs, flooring and walls but also in the roofing of their houses, (Cullavagga VI. 3. 11). This is an interesting literary proof of the fact that stone buildings existed in the age prior to that of Aśoka. Jarasandhakī-Vaiṭhaka at Rājgṛha, the approximate date of which was the sixth century B. C. if not earlier, and which was "built wholly of stone neatly fitted together without mortar" supplies an instructive archaeological proof.'—Bhattacharya.

Adherence to standard measurements seems to have been in vogue from the earliest times. The words like kikku (kiṣku) and Vidathi (Vitasti) technical terms of Vāstu-measure occur in jātakas. Needless to multiply numerous references in this great folk-lore of India. We may put in brief that different classes of palaces of varying shapes, with abundant application of pillars (sahasthamba Pāsāda—553); and with many pinnacles and storeys (cf. 541); curved wooden rafters—Gopānasīya (cf. 396); watch-towers with quarters for watchmen

Aṭṭālaka (534 & 458); pillars of various shapes—Atthaṁsa 'Aṣṭāsra' (541 & 543); and doors, windows including latticed ones with perforated screens, lintels, stairs and cornices etc. have all found eloquent mention. The descriptions of towns tally very much to those found in epics—jātaka no. 518.

Pali Canons. Like jātakas these canons also yield abundant information on the most flourishing architectural condition of the day, betokening the well-established canons of the art. The Mahāvagga and the Cullavagga are the two texts which provide a fascinating state of architecture. They deal not so much of town-planning, references to whieh are also not wanting—vide the mention of the cities like Ayodhyā, Vārāṇasī, Kāmpilya, Kośāmbī, Mathurā, Mithilā. Māhiṣmati, Ujjaini, etc. etc.—as with detached buildings. At places it appears as if the Lord is giving sermons on the science of Architecture itself. In Cullavagga (VI. 17.1), He appears to enjoin upon his devotees the supervision of building-construction as one of the duties of the Order (i.e. the Saṁgha). In Mahāvagga (I. 30, 4, and also Cullavagga VI. 1. 2) the Blessed One is stated to have said, "I allow you, O, Bhikkhus, abodes of five kinds—Vihāra, Ardhayoga, Prāsāda, Harmya and Guhā. This is the earliest classification of religious buildings very much elaborated in later Śilpa-texts like the Samarāṅgaṇa-Sūtradhāra. Houses were called Leṇas (Sansk. Layana) implying thereby the secluded places on mountains and such other places of solitude and tranquility. Hence the secular implication in the context of royal mansions is beyond any comprehension to us. All these buildings have been, as referred to above, very much discussed by scholars like Acharya and Bhattacharya on the clues provided by the commentator Buddhaghośa. My surmize however, takes me to think that they are more associated with religious abodes rather than their secular or civil counterparts. Vihāra is well known term. Similarly Prāsāda, Harmya and Guhā are also well known. The difficulty lies with Addayoga or Ardhayoga. Buddhaghośa explains it by saying 'Suvarṇa-vaṅgageha' and Dr. Bhattacharya conjectures—'which may mean either a house made of gold, or tin or a peculiar kind of building prevalent in a country then known as, Suvarṇavaṅga'. Oldenberg and Rhys Davids render it, 'gold-coloured bungalow', Dr. B. C. Law would interpret it as Garuḍa-shaped house. Dr. Acharya does not make any serious attempt to explain these divergences. This category comes after Vihāra, well-known Buddhist monastry—the living abode of the monks and Ardhayoga may mean a separate abode for the living of nuns in which half the portion is kept reserved for the abodes of nuns and the other half for ceremonial and

prayerful purposes. This is only a tentative explanation. More research is wanted. Prāsādas and Harmyas in this context really mean the storeyed buildings like those found in the ancient Universities of Nalanda and Taxila and not the royal houses. Guhā building may represent the cave-dwellings of Ajanta. The S. S. echoes this ancient tradition by calling some of the temple-types as Layana-Prāsādas (viz Guhādhara or Guharāja). It may be remarked that Buddhaghośa himself, collectively calls all these five layanas—pañcalenāni'. Paucity of space forbids me to undertake any extensive study of the store-house of architecture as is depicted in these sacred books of India. A brief mention of Ārāmas, a gift of Buddhists of the times, presupposes a very pleasant planning of suburbs of the famous towns, cities and capitals of those days perhaps to serve both the purposes—to keep aloof from the din and dust of city life as well as to practice the conduct in a peaceful, elegant and beautiful atmosphere. Masonary and material alongwith the component parts of a building, residential or devotional are all described. The threefold windows—Vedikā-vātāyana, Jāla-vātāyana, Śalākā-vātāyana, manifold stairs and various kinds of plasters mentioned in these canons simply epitomize the flourishing state of architecture of the time. Dr. Bhattacharya rightly observes : 'The many-storeyed dwellings, the under ground chambers and the stone roofs indicate the developed engineering skill of the Indians. The painted chambers, the latticed windows and the stair-balustrades attest to their aesthetic culture. The drains, the dams and the baths, described by Rhys Davids, are further proof of the developed state of Indian architecture.'

Kauṭilya's Arthaśāstra.

From the chronological consideration the next land-mark in the history of Hindu Science of architecture as revealed in the preceding pages, is Kauṭilya's Arthaśāstra the date and authorship of which have been unnecessarily desputed by the contemporary writers. Its style and contents, however, presuppose its early antiquity and it cannot be later than 1st century B. C. It is equally an early work and might have been compiled by the desciples of the famous Kauṭilya, the Prime-Minister of Chandragupta Maurya.

This work may be regarded as the first datable work on civil architecture. Besides the numerous references scattered through out the work, this monumental treatise by the pen of the renowned author, contains scientific definition of Vāstu (Book III chap. 8) which includes buildings and their engineering both: 'Houses (or the sites of houses), pleasure-gardens (Ārāmas), Setubandhas (emba-

nkments and bridges) and lakes etc. are called Vāstu'. If we compare this definition to those given in Śukra's or Maya's, works, we find resemblance between them. The technical words like 'Vāstuhṛdaya' 'Navabhāga' the central plot of nine-plot sites etc. and the different kinds of roads with appropriate names for each one are the proofs of the existence of a developed science of architecture in that time. Durga-niveśa—Book II chap. 4 is a most systematic presentation of royal palaces and forts. As regards the dedication of temples in the centre of a city, our author remarks that in the 'Koṣṭhakālayas, the Vāstudevatās should also be set up according to their allotted positions. This gives us to conclude (as Dr. B. B. Dutta also concludes cf. 'Town-planning in ancient India) that Pada-vinyāsa, a very developed canon of town-planning was a stereotyped canon in Kauṭilya's age. Road-planning, planning of forts and palaces along with folk-planning and that connected with professionals were all well established. The word 'Pratolī' occurs for the first time here in the extant works on Vāstuśāstra both architectural proper and non-architectural adjuncts. Popular residential houses like Śālā-buildings and religious types like Caityas and Stūpas are also delineated upon. But the most copious descriptions and the presentations thereof, pertain to forts and the palace-architecture. If we make a comparative and critical study of Mayamatam and the Arthaśāstra, we may find a very valuable clue in reconstructing our past history of Architecture. Dr. Bhattacharya has made a detailed presentation of this treatise and I may be excused not to have taken up the further details here for want of space. Readers are referred to, to read these details in Bhattacharya's book—A study of Vāstu-Vidyā chap. IX.

All this literary evidence is a pre-christain datable record. A very brief notice of this literature has now enabled us to evolve a tangible shape of the arhitecturcal canons of pre-Christian period, so elaborately treated in later works, like Purāṇas, Āgamas and Śilpa texts. I therefore, pause for a moment to do this needful and present those principles of Vāstuśāstra—the Hindu Science of architecture in a tabular form as may be said to have been described or referred to in these early works—Hymns, Sūtras, Jātakas, Epics and the Arthaśāstra:

Principles	*Explanatians*	*References*
1. Vāstu	Rituals	Ṛg. Gr. Sūtras, Pālī Works and Epics.
2. Bhū-parīkṣā and Bhūmi-saṃgraha	Selection of Site and examination of soils.	,, ,,

Principles	Explanations	References
3. Dvāras and Stambhas	Position of doors and pillaras.	Ṛg. Gr. Sūtra, Pāli works & epics & Arth.
4. Dāru-āharaṇa and Vṛkṣāropaṇa	Collection of wood from the forests and plantation of trees	,, ,,
5. Pāda-Vinyāsa	Site-plans	,, ,,
6. Āyādi-nirṇaya	Vāstu-vidyā and Astrology—auspicious moments for house operation.	,, & Epics.
7. Symbolism in Architecture		,, & Arth.
8. Vāstu-śilpa-citra-sāstras and their inter-relation.		Arth. jātakas & Epics.
9. Prāsāda-vimāna-harmya-sabhā-maṇḍapa-ṣālā-bhavanānani"		
10. Bhavanāṅgas	Structures and component parts.	Epics & Jātakas.
11. Śaṅkusthāpana	Calculation of cardinal points.	,, ,,
12. Hastalakṣaṇa	Units of measurements.	,, ,,

Purāṇas.

Let us now take up Purāṇas most of which have detailed expatiations on architectural matters. Paurāṇika chronology is a matter of great dispute. The Matsyapurāṇa is regarded an early Purāṇa, while Agni and others as later ones. I therefore, need not deal with this controversial matter. My own contention, however, is: Recorded Purāṇas may be not very early, but Puranic tradition must be very very early indeed. In Indian tradition Purāṇas und Itihāsas come just after Vedas—'इतिहासपुराणाभ्यां वेदं समुपबृंहयेत्'

Puranic lore on Vāstu (architecture), Śilpa (sculpture and Iconography) and Citra (Painting) is simply vast and a casual reference like the one, I am going to make, is not sufficient to bring home to the readers, their full contribution. For completeness' sake however only broad headings of contents may be tabulated here. Casual references to architecture are met in practically all the 18 Mahāpurāṇas, but the following ten Purāṇas treat the subjcect more systematically, some of which more copiously and elaborately:

1. **Matsya.** The accounts of eighteen preceptors of the science of Architecture—vide ch. 255, are very important purporting a very early antiquity of this lore. In the chapter entitled Stambha-māna-nirṇaya (ibid) five-fold columns are described and the Sūtra-tradition of the central post as regulator of the whole composition of a building is continued. Prāsādalakṣaṇa (269) and Maṇḍapalakṣaṇa (270) constitute the details of Temple-architecture, plans, measures, storeyes, cupolas, steeples. Building materials under Dārvāharaṇa (257) are also discussed. The remaining three chapters (259, 263 and 292) are devoted to sculpure under the headings of 'Navatāla-lakṣaṇa' (proportionate measures of an image); Liṅga-lakṣaṇa, and 'Pīṭhikālakṣaṅa'.

2. **Skanda.** It is also an early Purāṇa. It devotes three chapters to the subject. Its expatiations on the laying of a large city are of particular interest. Golden hall, chariots and Kalyāṇa-maṇḍapa form the principal subjects of other two chapters. Like Viṣṇudharmottaram this Purāṇa also treats painting, though in a summary manner.

3. **Garuḍa.** It adds more valuable contributions to Hindu architecture. All the principal topics like Prāsādas, forts, pleasure-gardens, temples, maṭhas, all the three classes of buildings—residential, military and religious have deen described — chaps. 46–47. Its two chapters on sculpture are very important. Śāla-grāma images are its chief contribution.

4. **Agni.** Among all the Purāṇas Agni's place is unique. It has dilated on the subject at greater length. There are sixteen chapters devoted to the topics of Vāstuśāstra. Only three chapters dealing with 'Nagarādi-Vāstu (106), the canons of town-planning and those related to Temple-planning the 'Prāsāda-lakṣaṇa-Kathanam' (42) and Prāsāda-lakṣaṇa (104) are more important for our present study. The remaining thirteen chapters deal with iconography and sculpture a notice of which has already been taken in my Vāstuśāstra Vol. II. It may be remarked here that Agni-Purāṇa's and Garuḍa-Purāṇa's chapters on Vāstu-vidyā are identical. One may be a copy of the other. Further there is a good deal of affinity between the Agni and the Hayaśīrṣa-pañcarātra. Hayagrīva is the Pravaktā of the Agni's chapters (39 & 42) dealing with temples. Dr. Bhattacharya, therefore, conjectures that the fountain head of both these Purāṇas might be the Hayaśīrṣa-pañcarātra which is itself one of 25 Tantras enumerated in the Agnipurāṇa.

5–9. The Purāṇas like Nārada, Vāyu, Bhaviṣya, Brahma-Vaivarta and Brahmāṇḍa also deal with this subject in their own manner. Needless to multiply their contents. Readers may see their contribution in Acharya's and Bhattacharya's works.

10. **Viṣṇudharmottaram.** This Purāṇa forming an appendix of the great Viṣṇu-Purāṇa is a store-house on the arts of architecture, sculpture and painting. The Pt. third on painting is a unique contribution and a detailed comparative and critical account of this matter has been presented by the writer in his work Vāstuśāstra Vol. II. The same part, chapters LXXXVI-VIII, gives a geneological account of about a hundred temples, a detailed notice of which has been taken by the learned author of Hindu Temple, Dr. Kramrisch.

Āgamas. These are more technical than Purāṇas in the matters of architectural and sculptural presentations. Āgamas and Tantras in one tradition are the same and deal with mystical worship of Śiva and Śakti. In another tradition they form two classes of separate literature though allied in their devotion to Śaivism and Śāktism equally. Āgama contribution to Śilpaśāstra is more extensive and technical than that of the Purāṇas. Some of the Āgamas, as already remarked, to all intents and purposes are but architectural treatises. The Kāmika for instance, devotes 60 chapters out of a total of 75 to architecture and sculpture and Dr. Acharya remarks: 'its treatment of the subjects can hardly be surpassed by that of an avowedly architectural treatise'. Preliminary matters are common to Āgamas and Purāṇas alike. 'But, unlike the Purāṇas, there is in the Kāmikāgama a discussion of architectural matters under some very highly technical classifications, snch as the styles, Nāgara, Drāvida, and Vesara; shapes, masculine, feminine, and neuter; Śuddha, Miśra, and Saṅkīrṇa, depending respectively on a single material, mixture of two materials, and the amalgamation of many materials; Sañchita, Asañchita, and Apasañchita, otherwise known as Sthānaka, Āsana, and Śayana, which, in case of temples, depend on the erect, sitting and reclining postures of the image. Another very technical matter referred to is ayādi formulas, so very important in selecting the right proportions.'

Like Kāmikāgama, other Āgamas like the Karṇāgama, the Suprabhedāgama the Vaikhānasāgama and so many others also deal with this side-branch of religious ritual, the foundation and dedication of towns and temples.

Tantras.

This class of ancient literature is not studied yet. It is, nevertheless, a very vast subject promising far-reaching results. The list of 25 Tantras as referred to, in the Agni are already enlisted in the foregoing pages. Hayaśirṣa-pañcarātra and Atrisaṁhitā are some of the notable works on Tantra-culture intimately associated with religious architecture, the construction of the temples and the making of images etc. Dīpta-tantra, Mahānirvāṇa-tantra, Śāradā-tantra and a host of others are a tantric exposition on the matters intimately related to Śilpa.

Bṛhatsaṁhitā.

Though an astronomical work written by a leading astronomer of the Gupta period, it deals with architecture also. It is remarkable work on Hindu Science of architecture and is also a datable work. Its treatment of the subject is methodical, succint and scientific. Its contribution, therefore, to the evolution and developmont of Indian architecture is simply superb. It is, like Purāṇas (being a semi-purāṇa itself), an encyclopaedia of manifold information.

'In this treatise there are but five chapters devoted to both architecture and sculpture. But the subjects have been treated with a master hand. The chapters open with a definition of the science of architecture, and the author goes on to describe briefly but succinctly and to the point, the suitable building sites, testing of soil, general plan, comparative measures of storeys and doors, and carvings thereon, and other important parts of a building. The preliminary subjects are described in the opening chapter. Then follows the description of the buildings proper, under the same twenty types as in the Matsya and the Bhaviṣya-Purāṇas, the names and details being identical. The preparation of cement is discussed in a separate chapter. One whole chapter is devoted to the construction of the necessary articles of house-furniture, such as bedsteads, couches, and seats. Quite consistently with his sense of proportion Varāhamihira devotes only one chapter to sculpture, where, too, the details of images are described in a scientific manner which is missing in other ancient literature. He is, however, accused of being 'in the habit of uncritically copying his authorities' and misappropriating their materials. But in his treatise seven architectural authorities are mentioned distinctly.'

Pratiṣṭhā class of works. There are several standard manuals on Pratiṣṭhā. Among them Īśānaśivagurudeva-paddhati, Haribhaktivilāsa

and Maṭha-pratiṣṭhā of Raghunandana and Hemadri's Caturvarga-cintāmaṇi are very important. Their contribution to this side-branch of religious ritual is remarkable. They not only mirror the flourishing condition of Indian architecture of the time, but also lay down the rules with their distinct and definite contribution in the special rea'm of temple-architecture and iconography. A detailed notice is precluded here for want of space. Īśānaśiva-gurudeva's work and other important manuals will be referred to on many places of this stndy.

Miscellaneous Works.

Among the miscellaneous works, Nīti-works like Śukra's Nīti-sāra, poetical works like Bāṇa's Kādambarī and Harṣacarita, Kallhaṇa's Rājataraṅgiṇī, works of other poets like Māgha and Bhavabhūti and Dramas like Mṛcchakaṭika are very valuable to reconstruct the history of Indian architecture and a notice of these works is reserved in the respective parts devoted to subjects like Town-Planning and Palace-architecture.

Śilpa-texts.

Lastly though never least in importance, let us take up the architectural-proper treatises on the subject—the Vāstuśāstras and Śilpaśāstras. Why have I reserved them in the last is not very difficult to understand. So far we have been dealing with that class of literature which is only indirectly related to architectural subjects. They, therefore, as it were, formed the Pūrvapakṣa. The Śilpaśāstras, the systematised manuals of the science are the canonical books of art. Moreover, it is to inter-link this chapter to the subsequent one 'Principal texts of Hindu science of Architecture' that some notice of this class of literature is being taken here forming the highest peak of the edifice of the evolution and development of the history of Hindu Science of Architecture.

We have already said something of the Vāstu-ācāryas. They had their works, most of which are lost to us. Nevertheless, there is a formidable list of this class of literature also which is our proudest possession and a scientific study of some of them was a long desside-ratum. The present writer accordingly started his study of Vāstu śāstra with 'A study of Bhoja's Samarāṅgaṇa-Sūtradhāra' the results of which were presented in his Ph.D. Thesis, acclaimed as a poineer-ing attempt—vide the introductuion to this work. In this extended study I have tried to study some of the most representative text books belonging to both the schools of Hindu Science of Architecture —vide the subsquent chapter 'Representative or Principal texts of the Hindu Science of Architecture'. They are, besides the S. S., the

Viśvakarm-Vāstuśāstra (recently published from Tanjore), the Aparājitapracchā, the Mānasāra, the Mayamata and the Śilparatna. In the compilation of the Vāstu-lakṣaṇas—a systematic presentation of the original material under scientific heading of art drawn from some leading and more popular texts however, I have tried to study practically all the easily available texts. Thus a kind of presentation of all these texts, is already there. A casual review of all these texts however, is called for, for more informative an anlysis.

Let us first tabulate the more popular and important works of Vāstu or Śilpa Śāstra. Let us take those belonging to the Visvakarmā or Nāgara school of Hindu architecture :

1. Viśvakarma-Śilpa
2. Viśvakarma-Prakāśa
3. Viśvakarma-Vāstuśāstra.
4. Sanat-Kumāra-Vāstuśāstra
5. Samarāṅgaṇa-sūtradhāra
6. Yukti-kalpataru
7. Aparājita-pracchā
8. Vāsturāja-vallabha
9. Prāsāda-maṇḍana
10. Rūpa-maṇḍana
11. Rajasiṁha-Vāstuśāstra
12. Bhuvana-pradīpa
13. Bṛhacchilpa-śāstra
14. Mānasollāsa
15. Manuṣyālaya-candrikā
16. Vāstu-Vidyā
17. Vāstu-ratnāvalī
18. Paurāṇika-Vāstuśānti-prayoga
19. Vāstu-muktāvalī
20. Vāstusaṁgraha
21. Vāstusāra (in Prākṛta)

N.B.—The following 14 books are also attributed to Viśvakarmā in the catalogus catalogorum of Dr. T. Aufrecht:

1. Aparājita-pracchā by Bhuvanadeva
2. Kṣīrārṇava-śilpa of Viśvakarman
3. Jaya-pracchā
4. Vāstuśāstra
5. Viśvakarma-mata
6. Aparājita-prabhā or Viśvakarma-saṁhitā
7. Āyatattva
8. Jñāna-ratna-koṣa
9. Vāstu-prakāśa
10. Vāstu-vidhi
11. Vāstuśāstra
12. Vāstusaṁgraha
13. Vāstu-samuccaya
14. Viśvakarmīya

N.B.—Dr. Acharya has, however, presented a catalogue of about 150 Vāstu-texts in his Encyclopaedia, most of which are partial treatises dealing with one or two subjects of architecture or sculpture and hence they may be left out. As regards the Maya school or Dravida school these are the principal Śilpa-texts:

1. Mānasāra
2. Mayamata
3. Nagnajit-Citralakṣaṇa
4. Kāśyapa Śilpa
5. Agastya-Sakalādhikāra
6. Vāstu-puruṣa-vidhāna (Nārada)
7. Prayoga-mañjarī
8. Prayoga-pārijāta
9. Śilparatna
10. Śilpa-saṅgraha
11. Śukranītisāra
12. Tantra-samuccaya

It is not desirable to review all these works. A few remarks, however, are necessary. Some of these texts are very important for the mention of early authorities. In this respect Vāsturatnāvalī though a later work, is very informative. At first sight the names of 18 preceptors mentioned in the Matsya-purāṇa seem mythical ; but the truth is otherwise While the Viśvakarma-prakāśa and Mayamata only refer to Śambhu as a great authority, the Vāsturatnāvalī actually quotes a passage from Śambhu's works. A book named Brāhma-śilpa is quoted in Śilpasaṅgraha. Bhattotpala quotes a verse from the work of Śukra and Nagnajit. Vāsturatnāvalī again quotes verses from the writings of so many Ācāryas enumerated in the Matsya-purāṇa—Bhṛgu, Vaśiṣṭha etc. Garga's work was available to Varāha-mihira. Similarly so many other examples can be multiplied.

Secondly some of these books are mainly copies of the more standard books. For example, Śilparatna freely takes from Mayamata and Maṇḍana's works are repetitions of the Aparājita-pracchā at many places.

RISE OF ART

After a general introduction to the subject as a whole, we first took the rise of the science, let us say a few words on the rise of the art. Creations of art have always preceeded with the formulation of their rules. Grammar came only after the language was fully evolved. Hence art of architecture has preceeded the science of architecture. Naturally art ought to have been dealt with first. But as the main aim of this work is not the history of the art but its science, therefore, we considered the rise of science first and are taking the art afterwards—'Prādhānyena vyapadeśāh bhavanti'.

Early Periods

Early period may be sub-divided into pre-Vedic, Vedic and Epic periods. The Vedic period again is found treated in several of its sub-periods like Ṛgvedic, later Vedic, and Sūtra periods Again I have guarded myself in taking Indus valley civilization as pre-Vedic otherwise the natural division of the periods would have been pre-Vedic, Vedic and Epic as already referred to above. Something has already been said of the Ṛgvedic culture and Indus valley culture in the context of the origin

of Indian architecture, want of space forbids me to treat this subject with any detailed expatiations. So long as the controversy of Indus culture whether it is interior or exterior or more properly contemporary of the Vedic culture is not settled, any detailed treatment of Indus art is not very helpful in this outline history of Indian art. We may therefore, leave this valley as it was so done by its makers. As regards the later periods, the Epic epoch, the Buddhist and the Paurāṇika ages, some remarks have already been made. Here therefore, we may concentrate on the architectural history of our land as may be followed to, before the Golden Guptas rose to their alround power, magnificence and artistic exhuberance characteristic of the evolution and development of Indian art. It is from this period that the rise of Prāsādas and the Vimānas, the Hindu Temples the specimens of which reserved in the monuments, had begun. And the subsequent are pre-history of Indian art chiefly centres round our Temples in the different styles of art-craft-manship in both the parts of this sub-continent. I have, therefore, reserved this outline history of Indian temples in a subsequent part—V 'Temple-architecture'. The principles of Temple-architecture and its allied models and representations should go together. Temple-building is very much associated with temple-sculpture and this sclupture is more related to iconography in India, hence an attempt will be made to treat this subject in only very brief outlines. Iconographical sculpture and painting is the subject matter of the second volume of these studies—Vāstuśāstra Vol. II—Hindu canons of Iconography and Painting (already published—the subject of my D. Litt. Thesis, cf. the general introduction to this volume) where this subject is fully treated both in its background and the canons of art along with literary and archæological evidences. Thus our purview of this chapter gets very much delimited. All this related to religious art and architecture. What about the secular or popular or more correctly the civil architecture ? This is related not only to the house-building art but also to the canons of Town-planning, foundation of villages and towns in their manifold aspects. Again these may be conveniently divided as per genesis of the land into popular residential houses and the palaces of kings. All these three principal topics of civil or royal architecture need be dealt with in the respective parts allotted to each of these subjects where the scientific canons have been elaborated. Unfortunately in India the history of architecture revolving round civil or royal buildings is very very meagre indeed; nevertheless an attempt will be made to reconstruct this history if not from the very meagre archæological evidences at least from the references abound in literature especially the poetical works.

Again the pre-Gupta history of Indian art, may not be dwelt upon at any great length as this treatise is not directly related to that subject. It is only to provide a connecting link between the manuals on the one hand and the monuments on the other that this outline history is called for. Accordidgly this artistic history is comprised by three main developments of art—art of architecture, art of sculpture, and that of painting as well. Sculptural notice has been reserved at elsewhere—vide Pt. V Temple-architecture of this volume (see sculpture). Vāstuśāstra Vol. II and also my 'Hindu Canons of Painting' published separately are my works where both these subjects — Sculpture (Iconography) and Painting have been treated.

Historical beginning of Indian architecture is traced from the rule of the early Mauryan Dynasty (C. 400 B. C.) and these are regarded as wooden origins, which are keeping with our thesis that early Indian art was wooden grounded in the Vedic buildings which were characteristically Aryan institution. The later buildings as alluded in Epics may be said to mirror the influence of Asura or Nāga stone-architecture. The chief features of the early and later Mauryan architecture are the foundations of cities and construction of the royal palaces. The famous capital city of the Mauryas, the Pāṭalīputra, and the capital of the Pāñcāla country, the Ahicchatra, may be said to illustrate the town-planning system of ancient India in a characteristic manner. It was a stereotyped canon for the then town-planning to lay out the fortification consisting of moats, ramparts, gates and towers. The palace-architecture is illustrated by the Mauryan palace at Pātaliputra, a detailed notice of which is reserved in the part devoted to Palace-architecture. All this is secular or civil architecture.

The other notable buildings of the period mainly consist of Stūpas, Chaityahalls and Saṅghārāmas which may be classed as religious architecture. We know that Indian art is the handmaid of religion and accordingly Indian architecture owes its origin from Vedic Rituals and the construction of 'citis' is the precursor of Hindu-Temple. The Hindu Temple is a growth of ages and multiple origions have contributed its formation. Stūpas, domed structures of brick or stone masonary, Chaitya halls the chapels and Vihāras the monastries formed important monuments of this period. After Vedic sacrifice Devapūjā, the Bhakti-cult gave rise to a great impetus to the construction of images, devagṛhas or devatāyatanāni and columns bearing the emblems of the gods in front of such sancturies,

the dhvajastambhas viz. Besnagar (old Gwalior state) Pillar. The origin of Stūpas may be traced from the hemi-spherical structures emerged out of the earthen funeral mounds (smaśānas) under which according to Vedic ritual, the ashes of the dead were buried. 'The earliest of the stūpas now extant represent a plain and simple structure consisting of a hemispherical dome (aṇḍa), placed on a low circular base and surmounted by a square box (harmikā), which is further crowned by the parasol or umbrella (chatra), the symbol of universal paramountacy. The dome was the principal element of the stūpa and was surrounded by a pradakṣiṇāpatha, or passage for circum-ambulation occasionally fenced off by a railing or wall.' This original form of the stūpa may be recognised in the Great Stupa at Sanchi which represents one of the earliest specimens now extant. Other notable example is illustrated at Bharhut The structure which obtained the greatest celebrity in Asia was the relic tower or pagoda which Kaniśka erected at Purushpur (Peshawar) over the relics of Buddha. Stupas were also erected in southern India from a fairly early period, and the Andhra region seems to have been literally studded with them. The most important of these monuments were situated at Amarāvatī, Jaggayyapeta, Ghantaasala, Nagarjunkonda etc.

Chaityas may be regarded Buddhist shrines in which the votive chaitya occupied the place of the altar. Such sancturies appear to have existed from very early times and the ruined foundations of chaitya halls traced at Sanchi, Sarnath, Sonari etc. may be said to belong to the period of Aśoka. The Chaitya halls, now extant are hewn out of a living rock. They are a copy of wooden structural buildings sculptured replicas of which are found in abundance in early Indian art. These chaityas may be said to represent the Addayoga, one of fivelfold abodes, the Blessed One had sanctioned to Bhikkhus. I have already remarked that it is shrine-cum-monastery and its resemblance to the Christian Church not only in shape but also to some extent in use is not quite correct. In the christian church the place of central altar is the chief architectural building, of course with its superstructure etc. but here in Indian chaityas, the places of the residence of the devotees and the object of devotion, both occupy architect's attention. The centre no doubt bears a remarkable resemblance to a christian church. The earliest specimens of these chaityas are in the rock cut caves at Barabar near Gaya in Bihar and the Sudama cave excavated by Aśoka for the Ājivikas. The most important of the Barabar group is the Lomaṣa Ṛṣi cave.

The next stage of evolution, after the Barabar group is found in a cave at Bhaja, near Poona, in the Western Ghats. Of approximately the same style and pattern are the Chaitya halls at Kondana, the delapidated Chaitya cave, Pitalkhora in Khandesh and also one of the early chaitya halls at Ajanta. All these three may be taken as contemporary to the Bhaja chaitya and all the four represent the oldest specimens. The movement continued at Ajanta, Nasik and Karle. The chaitya at Karle is the largest and may also be regarded the finest product. It may also be regarded the culmination of the early phase of this class of architecture.

The third off-shoot of early Indian architecture is illustrated in the Saṅghārāmas or Vihāras, what are called monastries. Originally they were built on the pattern of a secular private house the śālā-house with wooden materials, but later on as the monastic organisation developed, they become elaborate brick structures with many adjuncts. Often they consisted of several storeyes, and along each side of the inner court-yard there usually ran a long corridor supported on pillars. This building may fairly correspond to Harmyas and Prāsādas the two of the five-fold religious residence sanctioned by the Lord. Both chaityas and Vihāras go together. This is Buddhist institution and the early specimens are found at caves just enumerated above in connection with chaityas. Jainism also contributed to the evolution and development of ancient Vihāras. The Jain caves at Udayagiri and Khandagiri near Bhuvaneśvara in Orissa, are remarkable; the most elaborate, among these 35 excavations, being the Ganeśa and the Rānī gumphas. The earliest of the Vihāra, caves in Western India, are those at Bhaja and Bedsa. Of the other pre-christian Vihāras, mentioned may be made of: those at: Ajanta, Kondane, Pitalkhora, Nasika (early group) and the Ganesalena at Junnar. The storeyed Vihāra is illustrated at Karle. It is simply grand and magnificent.

Asokan pillars in the history of early Indian art are a land-mark. But they should be treated in the context of Indian sculpture rather in that of architecture. Similar is the case with Śuṅga-Kaṇva art (Madhyadeśa and Eastern India) as represented at Sanchi, Bharhut, Bodh Gaya etc. etc. and at Bhaja and Karle (Western India) and the reputed centre of art like Vengi, Mathura and Gandhar.

CHAPTER V

STUDY OF HINDU SCIENCE OF ARCHITECTURE

(A Study of Representative or Principal Texts)

In the foregoing pages we have already taken notice of the manifold types of Vāstu Works. We have also had a birds's eye view on the vast mass of the literature and the different traditions, that are incorporated in it. We have also tried to evaluate this lore on the basis of two broad and distinct traditions or schools of Indian architecture. Here in this chapter, a somewhat detailed notice of some of the most representative and renowned texts on Hindu architecture is necessary to complete the introductory part of this treatise and to justify the title 'Hindu Science of Architecture' with especial reference to Bhoja's Samarāṅgaṇa-Sūtradhāra. Accordingly the following six texts in two sets of three each belonging to the two famous schools of Indian architecture, the Aryan and the Dravidian, may be purviewed:

A: Northern or Aryan or Nāgara.	*B: Southern or non-Aryan or Dravidian.*
1. Viśvakarmā's Works	1. Mānasāra
2. Samarāṅgaṇa-Sūtradhāra	2. Maya-mata
3. Aparājita-pracchā	3. Śilparatna

Before proceeding with these individual texts, some remarks are necessary to bring home to my readers as to why only these six texts have been chosen. Are all these works equally representative ? Any affirmative answer may not be fully correct. We have already taken notice of the scope of the Vāstu-Śāstra. Accordingly these are the principal texts which are not only broad-based but also they delineate upon almost all the principal subjects of Hindu Science of Architecture, town planning, buildings (both secular and religious), icons and iconography, (both sculptural and pictorial). The works like Kāśyapa-śilpa or Agastyasakalādhikāra though very large treatises, are limited in scope of treating mainly sculpture. Nārada-śilpa undoubtedly is a very important work, but it is still under investigation and has not attained the status of a popular treatise as these works have done. Moreover, it is only a broad indication. Nothing is water-tight treatment. Our architectural heritage is really very sublime and its lore very vast and therefore in a critical work like this a review of only limited number of texts can be attempted. Let us begin with Viśvakarmā's works,

Viśvakarmā's Works:—The text-books of Vāstuśāstra, the science of architecture, are records of oral traditions and transmissions which go back to an undefined past and Viśvakarmā's works fall in this category. There are certain known texts such as Varāha-mihira's Bṛhat-saṃhitā which was compiled not later than the sixth century A. D. and which avowedly refers to the works of the old masters and truly admits that it was but a brief account of the treatises by the master-architects like Maya, Viśvakarmā, Garga and Manu. We have already said something on ancient Ācāryas. We have also remarked that there are several works going by the name of Viśvakarmā. Viśvakarma-prakāśa and Viśvakarma-śilpa are such works and a notice has already been taken of them—vide Dr. Acharya's work (H.A.I.A.). My surmise is : both these make up a complete treatise, the former dealing with mainly architecture and the latter with sculpture. Here a particular notice of a recently published work of Viśvakarmā, the Viśva-karma-Vāstuśāstra is called for. But before we take a detailed notice of the work, a note of warning may be sounded. The authentic date can not be warranted. Very few Sanskrit works can be regarded as datable works. Perhaps we never cared for historical chronology or sequence. A historical truth or a historic truth was all for us. Accordingly we are unable to fix its date. Every Sthapati could call himself a Viśvakarmā. An accredited mission of an accredited master becomes the property of the desciples as well. This is really very sublime. But in this age of rational and scientific approach, this is a great draw-back and we should admit it. It is nevertheless, a fact that all these treatises are but an authentic, unbroken and faithful transmission of our ancient lore. Hence these works are our hand-books and guide-books to reconstruct our architectural and artistic traditions and to study and appreciate better our architectural heritage.

Viśvakarma-Vāstuśāstra :—As already remarked that it is a recently published work, its recension is based on a manuscript available from the Sarasvati Mahal Library at Tanjore and its credit of bringing to light goes to a team of savants and engineers of repute. My friend and colleague, at the Experts Commitee for Engineering Terms, Government of India, Ministry of Education, New Delhi, Major N. B. Gadre, has the credit of preparing a synopsis of its contents and publishing it in his 'Śilpasaṁsāra'. I am therefore taking this opportunity to use his synopsis in my own way after having gone through the text and prepared my own study.

The whole work consists of eighty seven chapters in about 1800 verses i. e. more than three thousand five hundred lines. The following tabulation of the chapters and their subjects will give a

bird's eye view of the subject treated in this manual

1. Advent of Indra and other gods at Kailāśa and his prayer to Lord Śiva and Nandī's call of Viśvakarmā.

2. Viśvakarmā comes and prays to the Lord for the light of Architectural Lore, the Vāstuśāstraprakāśa and the Lord's Benediction and Blessing. Thus obtained the science from the Lord, Viśvakarmā praises and unfolds the scope of the Śilpa.

3. It deals with orientation of the sites explaining the East-West -line and the extent of shadow on different seasons for different latitudes.

4. It deals with men and materials to be employed in Vāstu. The chief material being wood, it is going to the forests and bringing the timber for buildings from them. So the main topics of interest are undesirable timber trees, curing of trees felled for timber and lightning blast etc. Further useless timbers, due to milky sap such as Madhūka, Tiniśa etc. are also not suitable for horizontals or for carvings.

5 and *6*. They deal with the Examination of the different kinds of lands, regions and soils and their selection. In the Second chapter (ie. the 6th one) levelling of site, placing of foundation box and details of articles in that box are also described apart from the traditional treatment of this topic as we find in the texts like the Samarāṅgaṇa and the Mānasāra.

7-10. The subject-matter of chapters 7 to 10 is very interesting from the standpoint of community planning—the planning of the villages and town-planning as well as the planning of forts and roads, streets, lanes and bylanes in all of them together with their measurements etc. Here as many as 12 types of villages, 5 types of 'Kheṭādi' the special rural habitations, 7 types of 'Nigamādi' nagarīs (ie. cities), 20 kinds of 'Padmakādi' nagaras (ie. towns) and 12 types of Durgas (the forts) have been described (cf. the 2nd part 'Town-planning' and the Vāstulakṣaṇas, the second ,patala' where all these individual types have been noticed).

Some remarks on the town-planning and the village-planning as prescribed by this text, however, may be made. It prescribes restrictions of population on village-site for avoiding spread of diseases due to over-crowding. It also suggests that the cost of a new town can not be wholly met by the king. The king is only to order and and distribute the sites. Is it not a community-planning of these days? Similarly the treatments like the gradation of towns and rampart arrangements, the location of government houses, the

approaches and communications, inter-relation of roads, proportion between them, their width etc. are also interesting. It also prescribes easy water facility on all roads The treatment of professionals residing in towns is also very interesting. Village-planning is very grand—cf. cosmopolitan population.

11. This chapter entitled 'Deva-prāsādabhūmāna-kathana' deals with the planning of Prāsāda, the Hindu temple with its garbhagṛha, the sacred chamber and other accessory and adjacent buildings together with the Prākāra etc.

12-13. Similar treatment is accorded to the palaces of kings (12), the latter is specifically dealing with the fortification of Royal Palaces. A particular notice is that regional variation of structural types are recommended and planning of the Palace with all the required establishments and accessory buildings for residential and pleasure purposes is dwelt with at length.

14. The chapter is entitled 'Bhavanalakṣaṇanirūpaṇa' and it deals with 'Bhavana' in the sense of a gorgeous mansion, incidently referring to the different salient features of a Vimāna type, a Mālikā type and a Harmya type.

15. Expatiations of this chapter on 'Pūrvabhavana' is of special interest. It is a modern portico or Pratolī ('Pauri' in Bhāṣā) of the Samarāṅgaṇa with the difference that it is to take a shape of a pavilion or a śālā with a good number of pillars. Its main purpose is to add to the beauty of the building of a Prāsāda or Harmya and is also useful for parking of conveyances like Śibikā etc. Different varieties of Pūrvabhavana take different number of pillars—from four to sixteen.

16. This chapter with the heading 'Nyāyaśālālakṣaṇa' deals with Palace court, the Āsthānika which is twofold, Nyāyaśālā and Sabhā. The former again is twofold 'Deśyā' and 'Paurā' which may be explained as rural and urban law courts respectively. Details are to be seen in the body of the book ahead (cf. Palace-architecture). Particular mention may be made of the pillars which are the main architectural elements together with decorations and the seats, the Siṁhāsana, the royal seat and the seats for other degnitaries in them.

17. This is in continuation to the 16th, dwelling at length on the two mains types of courts, the urban and the rural—'Paura-deśyasabhādi-kathana' — law courts.

18. This chapter on 'treasury'—'bhāṇḍāgāra' may also be taken in continuation to the Palace-accessories. In the opening lines of the

chapter, however, incidental expatiation on the Vāstuśāstrācāryas is worthy of our attention. Here is mentioned a list of as many as eleven early authorities such as Agastya, Nandī, Nārada, Bṛhaspati, Timyaloka, Kāśyapa, Lokadarśaka Kātyāyana, Mārīca, Citratoyaka, Pālakāpya, Puṇḍarīka, Dīrghadarśī, Punarvasu and Yogasāra, in which the names like Timyaloka and Citratoyaka are not familiar and perhaps are not to be found in other sources like Matsyapurāṇa. Treasury, again, in the context of this treatise, is twofold Deśyā and Paurā like the rural and the urban law courts.

19. The Inner Chamber, the Antaḥ-pura in a Royal Palace has found a separate treatment in this work. Side by side with this topic of the chapter a detailed expatiation on the manifold types of 'Gavākṣas' is attempted. These are to be laid in the pleasure pavilion of the inner chamber. The varieties of gavākṣas are taken up in the 3rd part—vide also the Vāstulakṣaṇas under the term.

20. Then follows the Arsenal, Āyudhaśāla, wherein the opening lines the presiding deities of the weapons—Para Śiva, Hari, Brahmā, Varuṇa, Marut, Gandharva-pati, Arka, Candramā, Citrakārmuka Vainateya, Nāgarāja, Ketumālī, Vaiśvānara and Yama—are referred to. Further are mentioned the great sages like Vaśiṣṭha, Pulaha, Kāśyapa, Bhṛgunandana, Mārīca, Cyavana, Kaṇva, Viśvāmitra, Nārada, Vālakhilya-group (of Ṛṣis), Lokadarśaka, Dīrghadarśī, Kundaromā, Gālava, Pañcavāraka, Bhāradvāja, Kṣatrapāla, Keśika, Madhusūdana, Sudarśana and Piṅga, who obtained technique and training of the science of warfare from these gods and transmitted the same to the kings on the earth for their good and for the good of the humanity at large. This is an echo of the greater epic, the Mahābhārata (cf. Teaching of Yudhiṣṭhira by Munis). Further next are described the names of the manifold weapons and their daily worship by the king. Then are taken up the architectural details.

In the latter half of the chapter, Royal library—Pustakaśālā is taken up because for a king the Śāstra-śravaṇa is as essential as Khaḍgadhāraṇa. In the planning of an ancient Indian Library a structure like pavilion was essential for reciting the book.

21. It deals with the necessity of an inner-room or inner-chamber in practically all the superior types of residential houses.

22. A separate treatment to the Dining Hall has been accorded in this chapter in which the allotments of separate seats and the direction thereof, to the Yatis (begging food), the Pitṛs, the children, the ladies etc. are very interesting and it mirrors the prosperous and pious homes of the then India.

23. In this chapter the bed-room is described.

24. This chapter deals with 'Vasantagṛha'—a pleasure-house specially suited to the Spring Season.

25. It deals with 12 types of doors. It also expatiates on their decorations.

26. It may be taken in continuation with the former as Toraṇa, the arch is intimately connected with the door and has been a very important architectural motif in Indian doors. The text however goes a good many steps further and enjoins its decoration on so many other articles of house-hold furniture and the component members of the house itself. Its varieties to be seen in the body of the book—cf. also Vāstulakṣaṇa.

27. Herein are described the various types of pedestals or socles of a structure.

28–32. In these chapters Gopuras of one to nine storeys are described, a detailed notice of which has been taken in the Part dealing with Temple-architecture.

33–34. They deal with Vāpīs and Taḍāgas—the water reservoirs.

35–36. These chapters deal with 'Maṇḍapa'—a family shrine in a royal palace (cf. the S. S. 'Āyatanādhyāya').

37. This chapter on 'Mṛgaśāla' is a unique contribution of this text on zoological gardens wherein wire-netting is prescribed for cages in these gardens.

38–39. These two chapters expatiate on Aśvaśālās and Gajaśālās —the accessory structures of a Royal palace. We will see that the treatment of Aśvaśāla in the S. S. is unique but uniqueness of this text is also there in one respect that it prescribes race-courses with sand-blindage and that the junctions of Provincial Highways are to be laid in the vicinity of such Race-courses and gardens.

40. This chapter on 'Vidyāśālā' is also unique that it gives a detailed account of school-architecture rarely to be found in other Śilpa-texts. Village-school building or city-school-edifice or one to be located in residential house itself—all are referred to, but there is an explicit reference to only one style of school-architecture—the details will follow—vide Public buildings.

41. 'Saṅkīrṇabhavana', a special type of structure in the different styles—Palace-like gorgeous and simple one—both are described in this chapter.

42–43. The former expatiates on bunting-like ornamentations of buildings and other structures like stairs, lamp-posts, coaches, doors,

seats, etc. etc. under the technical term of Patākā, the latter dwells at length on the technique of iron-work, the nails etc. what is termed 'Pāribhadra'.

44–45. These chapters deal with the Assembly halls or more fittingly with the sitting halls, the modern Drawing rooms or Varandahs, which in a particular context of a palacial building will take a good many śālās interwoven to one another under the two separate headings of the Mahāśāla and Viśeṣaśālā, the latter being prescribed to be constructed in storeys also.

46–48. These deal with three types of marriage-pavilions (Kalyāṇaśālā)—Mānuṣī, Gāndharvī and Daivī, along with their Vimānas and Gopuras in the different styles of architecture like Māgadha, Pāñcāla, Kāliṅga etc.

49. It is a treat on Theatre, the Raṅgaśāla in which both Music-Hall and Dancing-Hall are to be laid in conjunction or otherwise. At the end of the chapter is a beautiful delineation upon the decorations like Maṇi-darpaṇas and Toraṇas and the images of gods and goddesses presiding over the fine arts.

50–52. The former deals with the palaces of ministers and princes, and the latter two expatiate on the residential houses of the four varṇas—Brāhmaṇas etc.

53. It describes doors with details of their joinery and decorations, the special feature being glazed doors.

54. It deals with the different types of stairs and their landings. Both straight and winding stair-cases are prescribed.

55–57. They are unique in describing the public places in a village (Ekaśāla), in a maṇḍala (Dviśāla) and in the capital (Bahuśāla) to be established by ruling chief for the tests in various arts and sciences. These may be called darbar-halls, where debates, Kavisammelanas, plays etc. etc. may be conveniently held.

58. It treats the pedestals—'Vedikā, divine and human both i.e. those fit to be constructed in temples and those worthy of a human dwelling. As many as 13 kinds are enumerated. In the end Pīṭhikās the seats or legs of the pedestals, are taken up.

59. It is a treatment of the lamp-pot under its technical name of 'Potikā' in great details of its various shapes and ornamentations.

60. It expatiates on Catvara—the raised up platforms to be used as a sitting structure in sunshine, in moonlight or even in rains, in details of their planning, moulding-decorations and other allied matters like drainage etc. and devices for avoidance of rat-nuisance.

61. It deals with joinery, the Sandhikarma both in carpentry and masonry, to be noticed in its proper place.

62-63. The former deals with roofings of various sorts and their drainage etc. under its technical name of 'Āvaraṇa' and the latter with 'Lūpā' a technique of mouldings and decorations (including ivory decorations) on the various members of buildings and articles of furniture. It is explained as 'kṣudra-kriyā-paṭṭikā'.

64. It is a masterpiece on pillars—as many as 12 kinds with their components, mouldings and decorations etc. the details may be looked in the body of the book.

65–66. The former is an expatiation on granary and the latter on the cow-shed, the gośālā. It enjoins not more than two doors in granaries and also prescribes loading and unloading platforms to some granaries.

67. It deals with the main entrance gates of the villages, towns and forts.

68–70. They are unique in describing the roads and the public places on them, the Mārgaśālas with the fullest paraphernalia of equipment. For hill-roads it prescribes inclined carriage-ways for hill-stations along with the provision of resting places and safe parapets. Other details may be looked in the book.

71. Special buildings, the Viśeṣabhaumas, are the subject-matter of this chapter. These are grand edifices in capital city.

72-76. Now begin Temples and their architecture—the main shrine and the accessories—the Prāsāda, the Garbhagṛha and the Maṇḍapas, Vimānas and Prākāras etc. to be noticed in details in the body of the book—vide Pt. V.

77. It is on 'Upapīṭhas' to be constructed under all important members of a building—Vedikā, door, arch, pillar, wall—for giving strength to them.

78-84. These seven chapters are devoted to Iconography and a detailed notice may be avoided here as this volume restricts its treatment to only architectural matters. Iconography and sculpture is the subject-matter of Vol. II. For the sake of completeness, however, the following tabulation of the chapters will do:

Chapters		*Subject-matter*
सकलविधदेवपीठलक्षणकथनम	(78)	On Pedestals
सकलबेरलक्षणकथनम्	(79)	On Images in general
अथ शिवबेराणां भेदक्रमकथनम्	(80)	On Śaiva icons
अथ विष्णुबेराणां भेदक्रमकथनम	(81)	On Vaiṣṇava icons

Chapters		*subject-matter*
अथ लक्ष्मीगौर्यादिदेवीलक्षणकथनम्	(82)	On Devi icons
अथ भक्तानांस्थापनक्रमकथनम्	(83)	On Bhaktas
अथ कल्पवृक्षादिवाहनलक्षणक्रमकथनम्	(84)	On Divine Vehicles

85-87. In the end an expatiation on our ancient Doctrine of Pūrta—the Foundation and Dedication of Temples and the Installation of divine images in them is made in order to justify all this lore and training. After all Architecture and Iconography are only a means not an end in themselves, the end being Devapūjā.

Thus, "The whole treatise deals with "planning", as such. Details of designs are usually excluded from the text although the commentator has added them in many places to explain the meaning. The general idea in the text is to deal with lay-outs, proportions and groupings, in general. Town-planning, Palaces, Assembly halls, and Temples, structures for special purposes, and roads with accessory buildings and bridges have been dealt with. Drainage of surface and sullage water, as well as water supply for habitation is also included. Some chapters deal with selection of site and fixation of the northline as well as with the collection and testing of materials; the different kinds of idols required in temples have also been dealt with at some length, but the main purpose of the book appears to be "planning" as mentioned above, and not to go into the details of designs at any great length. Theory of structures, or strength of materials, or specifications to guide dimension-details or workmanship, appear in many other treatises at greater length than here, but as far as planning is concerned, the present work appears to be of some specific authority.

A special feature which differentiates this work from many other Śilpa treatises in the Sanskrit language is the fact that the Paurānika, priestly, and astrological details have been reduced to the absolute minimun. Thus excepting the first two chapters and the last three chapters the all other chapters namely 3 to 84 deal with the theory and practice of Engineer-Planning as such. There are almost no priestly or astrological interpolations as are usually found in other Śilpa Treatises".

Thus it is evident that this text is a masterpiece of planning habitations and houses—community planning from 'smallest hamlets to the biggest metropolis', state buildings especially palaces which were practically the modern secretariats, embassies and assembly halls all together, and residential houses and religious buildings, the temples all have found an eloquent treatment,

Samarāṅgaṇa-Sūtradhāra

An Introduction to this monumental perfect and complete manual of Vāstuśāstra has already been made in the 'Introductory' Chapter. And as promised there, let us first begin with its Re-arrangement of the chapters:

Re-arrangement of the S. S.

Broad division of the subject.	Nos. and English rendering of Re-arranged Chapters		Nos. of Original Chapters
1	2		3
I. Preliminary matters —origin, scope and subject-matter.	1	The Advent of the Earth.	1
	2	The dialogue between Viśvakarmā and his sons.	2
	3	The query (the scope of the Śāstra).	3
	4	Creation.	4
	5	The Geography.	5
	6	The mortals in the company of the immortals and the rise of houses in models of a tree.	6
	7	The division of the society according to Varṇas and Āśramas and the need of manifold habitations.	7
	8	The qualification of an Architect.	44
	9	The eight-fold limbs of the body of architecture.	45
II Town-Planning.	10	Regional survey and the selection of the site and the soil-tests.	8
	11	The measurements.	9
	12	The Pada-Vinyāsa (Site-plans).	11
	13	,,	12
	14	,,	13
	15	,,	14
	16	The secular varieties of the Vāstu-plots.	38
	17	Towns and their categories.	18
	18	Canons of town-planning.	10

1		2	3
III House Architecture,	19	The determining of the auspicious dates and stars.	26
(a) Preliminaries	20	Offerings.	36
	21	The Vedi-erections.	47
	22	The rising of the flag-staff of Indra.	17
	23	Foundation laying ceremony.	35
	24	The First Operations (Kīlaka-Sūtrapāta).	37
	25	Pedestals.	40
(b) The Palace Architecture.	26	The Planning of the Royal house.	15
	27	The varieties of palaces.	30
	28	Assembly Halls.	27
	29	The stables for elephants.	32
	30	The stables for horses.	33
	31	The Princely shrines.	51
(c) Residential Houses.	32	Ekaśālas.	23
	33	Dviśālas.	22
	34	Triśālas.	21
	35	Catuśśālas.	19
	36	Pañcaśālas and other classifications upto daśaśālas.	25
	37	Some special varieties.	20
	38	„	24
(d) House-Architecture in details of the materials, masonry and decorations, etc.	39	Wood from the forest.	16
	40	Pillars and other components.	28
	41	Doors.	39
	42	Masonry.	41
	43	Decorations.	34
(e) Other Miscellaneous matters—defects, Bhaṅgas, and Vedhas, etc., etc.,	44	Bhaṅga in relation to doors and other component parts of the house.	43
	45	Bhaṅga in relation to the Toraṇa, etc.	46
	46	The defects of the house.	48
	47	The Śāntika (propitiatory measures)	42
IV—The mechanical construction and the construction of the household furniture.	48	The machines.	31
	49	The couches and cots.	29

1	2	3
V—The Prāsāda Architecture.		
A. Prāsādas Proper.		
Group (a) i *First Type.*		
Pillared halls and temples with flat roofs. (Chādya-Prāsādas).	50 The origin of the Prāsāda and Rucaka, etc. 64 temples	49
	51 Vairāja, the First Proto-type.	52
	52 Other details regarding the component parts and qualities and defects of the Prāsādas.	54
	53 (same as 52)	53
	54 (same as 52)	50
(ii) *Second Type.*		
Super-structure of Śikhara and the most characteristic feature being the Aṇḍakas, the minnerets from 1 to 100.	55 Another variety of Rucaka etc. 64 Prāsādas:— 25 Lalita Prāsādas, 9 Mixed Prāsādas, 25 Sāndhāra Prāsādas, 5 Nigūḍha Prāsādas	56
(iii) *Third Type.*		
Super-structure with storeys specifically dedicated to the following Deities, each one of them having 8 Prāsādas:— 1. Śiva 2. Viṣṇu 3. Brahmā 4. Sūrya 5. Caṇḍikā 6. Vināyaka 7. Lakṣmī and 8. All other gods. *N. B.* Some of these Prāsādas are most representative of the monuments and indicative of the varieties of the materials.	56 Prāsāda-Dedication.	58
	57 Vimāna etc. 64 Prāsādas.	59
Group (b) Ornamental Style :—	58 Meru etc. 16 Prāsādas.	55
The Lāṭa style with Śṛṅgas and storeys, having great religious merit–The noblest and the grandest of the Prāsādas.	59 Meru etc. 20 Prāsādas. i. e. 57 (b).	57(a)
	60 The Pure (Śrīdhara etc. —40 Prāsādas.	57
	The mixed (Nandana etc. 10 Prāsādas.	„

1		2	3
Group (c) Nāgara Prāsādas.	61	Meru etc. 20 Nāgara Prāsādas.	63
	62	Śrīkūṭa etc. 36 Minor Nāgara Prāsādas.	60
Group (d) Dravidian	63	Terraces.	61
Style : 12 storeyed temples with five-fold terraces and talachhandas.	64	Drāvida Prāsādas.	62
Group (e) Vāvāṭa (Vairāta.	65	Digbhadra etc. 12 Prāsādas.	64
Group (f) Bhūmija Prāsādas.	66	Bhūmija Prāsādas.	65
(a) 4 Caturaśra temples.			
(b) 7 Vṛkṣa-jāti temples.			
(c) 5 Aṣṭaśāla temples.			
B. Maṇḍapas.	67	Maṇḍapas—Eight-fold	66
Pavilions attached to temples: (cf. Gopurams of South Indian temples).	68	Varieties of Maṇḍapas 27 kinds.	67
C. Jagatīs and Jagatī-Prāsādas.	69	The Jagatīs	68
N. B. This should, as a matter of fact, be one of the preliminary topics of the Prāsāda-architecture but as the jagatīs are not only the Pīṭhas of the Prāsādas but a class of buildings as well (cf. Pt. V. ch. X.), they are here.	70	The 39 varieties of Jagatīs.	69
VI—Iconography.			
Sculpture.			
(a) Sculpture Proper.	71	Phalli and their pedastals	70
	72	Other deities and demons and Yakṣas etc. with their symbolic form, weapons etc.—the Pratimālakṣaṇa.	77
	73	Iconography—materials together with the sculpturing of the image from head to feet—Iconoplastic art and proportions of measurements.	76
	74	The defects and the virtues of the images.	78

Let us now take up its contents—chapter-wise as (rearranged).

I. Preliminaries.

CHAPTER I.

The Advent Of Earth-Mahāsamāgamana.

After salutation (a benedictory verse) to the Architect of all the three worlds—the Lord Śiva, the Author hints at the scope of Architecture—countries, towns, dwellings, Sabhā, the assembly halls, the temples and the furniture as well as the mechanical wooden implements together with the images etc., as some of the broad divisions of the subject matter or the scope of Architecture and hence the necessity of the triad—the Universal Planner, the great heavenly Architect Viśvakarmā, the Universal monarch, Pṛthu, the patron of the Planning and the Earth itself on which the planning to be performed. These three are brought before the Universal Creator, Brahmā and respective duties assigned to each of them. The chapter is named after the Earth, who had gone to Brahmā trembling with fear as the first king Pṛthu was disturbing her. No sooner did Earth reach the Lord, the king Pṛthu also arrived and he too narrated his lot. The Lord pacifies both of them and assigns the planning to the heavenly architect Viśvakarmā. The chapter closes with the advent of Viśvakarmā in the Himālaya. This is indicative of the Uttarāpatha and its style, the Northern or the Nāgara or the Aryan and it is from here that he shall commence his mission.

N. B. The story of the advent of the Earth to Brahmā also suggests that Brahmā is the founder of the North Indian Architecture according to the S. S.

CHAPTER II.

The Dialogue Between Father & Sons—(Viśvakarmaṇaḥ Putra-Saṁvādaḥ)

Viśvakarmā now remembers all his four Mānasa sons, Jaya, Vijaya, Siddhārtha and Aparājita to be his comrades in this great task of the Planning. He, therefore, distributed the planning of the human habitation—the towns, Kheṭas (small towns), villages, houses, public places, the gardens etc. together with the forts in between the mountains and rivers for security reasons, on all the four quarters of the Earth to his sons to each one quarter, and himself reserved the planning of the capital of the Universal monarch, the king Pṛthu.

CHAPTER III.

The Query—(Praśnodhyāya.)

Father's assignment of the respective duties to the sons is done. Now it is the turn of the sons to make query about the details of this great task and hence it is after the query that the chapter is named Praśnodhyāya. The questions are simply great and worthy of the great sons of the great Architect. All the cosmological, physical, geographical, astronomical questions together with their bearing on architectural subjects having so many ramifications themselves are put to the father by the eldest son Jaya. In these questions from the mouth of Jaya, the author has indicated the full scope of the Vāstu-vidyā, a detailed notice of which has already been taken in the Study (Part I Chapter II).

CHAPTER IV.

Creation (Mahadādisarga).

After the questions, the answers arise from the mouth of the great Architect Viśvakarmā, the father of Architecture, which he got from Brahmā. In this chapter the answers of the cosmological and physical queries are given, how creation followed (in the light of Sāṅkhya Philosophy) is very nicely dealt with in verses 4-19; how the oceans, the mountains, rivers, islands, came into existence—all are elaborated. The physical features of the Earth are also described. Lastly the biological kingdom is explained—the fourfold Bhūtagrāma consisting of Jarāyuja, Aṇḍaja, Udbhijja and Svedaja with their respective varieties are described.

CHAPTER V.

The Geography (Bhuvanakośa)

This chapter describes the earth with all its dimensions, area, circumference, the length and breadth, etc. together with the relative

dimensions of the four oceans, the Bhūtas etc. and the Mahat. Then follow the descriptions of the seven continents—the Dvīpas, Jambū, Śāka, Kuśa, Krauñca, Śālmalī, Gomeda and Puṣkara with their mountains, peoples and countries. The Jambūdvīpa (where India forms one of the countries) has been described in full detail. After this, on the four quarters of the earth, the existence of the four lokācalas is described. Thus a complete picture of the plan of the earth having been described, the chapter closes with the description of the movement of the heavenly bodies with their number and relative distances, especially of the solar circle.

CHAPTER VI

Men in the Company of Gods. (Sahadevādhikāra)

Here in this chapter we find an account of how mankind felt the necessity of dwellings and its first efforts towards the planning of a house. The origin of the first house on earth in the model of a Śāla-bhavan with the help of branches of trees (cf. the wooden origin of Indian Architecture) is described in a mythological manner: First men and gods, once lived together, in the Kṛtayuga; secondly in the course of time men lost their covetable status (living and enjoying with gods under the renowned Kalpavṛkṣa); and thirdly developing the characteristic traits of mortality and so many corresponding codes of attachments, greed, etc.—all this led to the formation of the couples and thence feeling of shelter both for the privacy of copulation and the warding of the inclemencies of weather as well.

CHAPTER VII

The Division of the Society According to Varṇa & Āśrama (Varṇāśrama-Pravibhāga)

The subject-matter of this chapter, as the very name indicates is the fourfold division of the society. A well-knit social structure needs a well-ordered government established by the Law of the Lord to be promulgated and enforced by the Paramount authority of the first king on earth, the celebrated Pṛthu. The Cāturvargya-system requires the Cāturāśramya also and hence the respective duties and responsibilities of all the Varṇas and the stages of the manhood, the student, the house-holder, the foresteer and the Sannyāsī together with duties and responsibilities of the women-folk, the teacher and the taught all are described. So far all this description is of non-architectural interest, but the community life, the essence of the social structure needs a suitable planning of the towns, villages, and the houses wherein to evolve the means of livelihood and satisfy the wants for the preservation of the society and its good government. Hence the maintenance and safety of mankind is entrusted to the

ruler of the land. King Pṛthu did discharge his duties by milking the earth and planning the human habitation on it. Milking the earth may stand here for surveying the vast lands and finding out characteristic wealth of the regions.

CHAPTER VIII

Sthapati-Lakṣaṇa—(The Qualification of an Architect).

A full notice of this Chapter has been taken in the Introductory Part of the Study—vide Ch. III "The Architect & the Architecture". It suffices to say that the text while laying down the mental and moral as well as practical equipment of an architect prescribes Śāstra, Karma, Prajñā and Śīla, the fourfold primary qualifications of an architect. The details may be seen in the Chapter referred to above.

CHAPTER IX

Aṣṭāṅga-Lakṣaṇa—(The Eightfold limbs of the body of the Vāstu-Śāstra i.e. Sthāpatya).

This chapter elaborates the fourfold Sthāpatya with its eightfold limbs. They are examined in the Introductory Part of this Study (ibid) with the exception of the seventh limb, namely—The Sacrificer's i.e. Yajamāna's shed. The Śālā for sacrifice has been very much elaborated together with its proportions and the paraphernalia of the Koṭihoma in the major part of this chapter. This Chapter also elaborates the planning of the Śibira, the Royal Camps, as well as incidently describes briefly the sixfold forts (see for details Pt II—Town Planning).

CHAPTER X

The Selection of the Site—(Bhūmiparīkṣā).

From this chapter the treatment of the purely architectural subjects starts. The first thing in any architectural planning being the surveying of the region (the regional planning) and ascertaining the different points of the region or deśa into which the planning of the towns, capitals, forts, Kheṭas, villages, and other human habitations and establishments is to be done. This survey consisted of the examination of the different soils and soil conditions and their suitability or fitness for the constructions, thereupon, of human dwellings, as the selection of the sites forms the first pre-requisite in any planning. The text distinguishes between three broad divisions of the lands and the soils thereof Jāṅgala, Anūpa, Sādhāraṇa with the sixteen-fold varieties of the different kinds of the lands. After this examination, a vivid and beautiful, simply charming poetical description of the Bhūmis fit to be selected for the planning of the Janapadas, towns, kheṭas, and grāmas, etc. is made. After this, four kinds of lands

suited to the building of four varieties of the forts is described. For the planning of the towns the lands of special qualities are again delineated upon (40-47). In ancient India the towns and villages were planned caste-wise (cf. Bāṇas' description of Brāhmṇādhivāsaḥ), the text, therefore, describes the different soils—fit for all castes and fit only for the Brāhmaṇas, Kṣatriyas or Vaiśyas and Śūdras. Thereafter the unfit lands are enumerated. The end of the chapter prescribes certain tests for the examination of the soil for the ascertainment of the suitability of the ground.

N.B.—Chapter XI. The Measurement (Hastalakṣaṇa) and chapters XII to XVI. (on Pāda-Vinyāsa) will be dealt with in a subsequent study—vide the next chapter—The Five Fundamental Canons of Hindu Architecture.

II. Town-planning

CHAPTER XVII

Nagarādisaṁjñyā (Towns and their Categories).

This chapter is of encyclopaedic nature and as its very name indicates, it does not deal with any particular topic but rather enumerates and defines the various and manifold architectural terms in relation to House Architecture and the Palace Architecture together with the more popular terms in relation to the town planning.

CHAPTER XVIII

Puraniveśa (The Town Planning)

The scheme of planning of the town (of all categories) with all the common components like Prākāra, Parikhā, Aṭṭāla, gates, Gopuras, roads, and streets together with the site-planning, residential quarters of the towns-men belonging to different castes and professions and the temples has been elaborated here in this chapter, the notice of which has been taken in detail in a separate part of this Study (vide Part II, Town Planning).

III House Architecture

A. Preliminaries

Chapter XIX entitled 'Āyādinirṇaya' deals with one of the five fundamental canons of Architecture and therefore is reserved for detailed notice in the chapter ahead.

CHAPTER XX

Balidāna (Offerings)

This chapter is also related to the theology of architectural planning. A good part of the offering consists of the most delicious edibles like milk, honey, curd, etc. etc. and is prescribed for all the deities connected with the site-plans and also to the Founder architect, the celebrated heavenly architect Viśvakarmā. All are to be conceived in a central circle of the site with a Kalaśa full of flowers and

gold. From the architectural point of view it may be noted here as enjoined in the end of the chapter that any architectural undertaking must proceed with the Vāstupūjā. The details are of non-architectural interest.

CHAPTER XXI.

Vedī-Lakṣaṇa (The Altar)

The seventh limb of the Aṣṭāṅga architecture (cf. S. S. 45.) is the knowledge of the planning of the Yajamāna-śālī, its altar and the architectural process of the Koṭihoma. Its utility in the civil architecture is not very much but in the performance of the rituals, sacrifices, ceremonies (marriage etc.) in connection with installation of the deities, Nīrājanas, Homas, coronations of kings and the rising of Indra's flag the construction of the altars is obligatory. The Altar admits of four classifications and their names and properties are laid down hereunder :

	Name	*Dimensions*	*Shape*	*Use*
1.	Caturaśra	9 Hastas	Square	Sacrifice
2.	Subhadra	8 ,,	Octagonal (Decorated on all sides or corners).	Installation of a deity.
3.	Śrīdharī	7 ,,	With 2 corners	Marriage
4.	Padminī	6 ,,	As name indicates in the shape of a lotus.	Nīrājanā, Homa, & coronation of kings.

Then follow their building elaborations. We know that the Vedic altar was the precursor of Temple-architecture in India. The laying of the brick (cf. citi-altar) and its attendant paraphernalia gave rise to what is called the religious architecture, the Pūjā-Vāstu—the temples and shrines (especially the sanctuary, the Garbhagṛha). Iṣṭikā-cayana, reminiscent of the Vedic altar, is prescribed here with the chants of hymns. Therefore, the building of sheds upon these altars on the columns specially built and well decorated is a rule. Stairs are also to be made.

CHAPTER XXII.

Indradhvaja-Nirūpaṇa (Indra's Flag)

This chapter is not altogether of non-architetcural interest. Indra's Flag is deemed to be an auspicious thing in a town, fort, residential house or in any other auspicious event or celebration. It is constructed on the model of a machine-yantra. It shows craftsmanship of very high order and it is not away from the domain of the architect, who is not only a master mason but also a sculptor (Mūrti-nirmātā) and

carpenter as well. It is a big chapter, as big as the chapter on the Machine (cf. 31st Chapter). It consists of 212 verses (424 lines). Details may be avoided.

CHAPTER XXIII.

Śilānyāsa (The Foundation Laying Ceremony).

The foundation is one of the most important architectural items in any building. Works like Mānasāra have given a detailed account of the excavations of the foundations, their different kinds with depths etc. But this chapter of the Samarāṅgaṇa-Sūtradhāra lacks those details and it is more of a theological nature and, therefore, limited in its architectural prescription. Thus this chapter deals at greater length with the foundation ceremony than the foundation itself. This ceremony is performed on an auspicious date. The text after giving details of dates and stars of good omen, proceeds with the characteristic qualifications of the foundation-stone (Prathameṣṭikā). Then follow the details of the prohibited or unfit stones like those which are bad in shape, bad in length, full of gravels, uneven, contaminated by birds and animals. After this the four principal varieties of stones with their presiding deities are described :

	Śilā	*Presiding deity*
1.	Nandā	Vaśiṣṭha
2.	Bhadrā	Kāśyapa
3.	Jayā	Bhārgava
5.	Pūrṇā	Aṅgiras.

Before the actual operation of the foundation laying with the stones begins, ritual altar should be constructed and fulfledged worship to be offered to all these stones and the rewards distributed among the Brāhmaṇas, reciters of Svastika chants, with respects. The offerings are, then made, to the lords of the land, the Vāstu-puruṣa and other spirits. It is after this ritual that the laying begins of all the principal stones as also their sub-varieties (Upaśilās) having the symbols of Prākāra, Svastika, Śrīvatsa and Nandyāvarta in the prescribed directions and corners viz. Nandā in the South East of the site plan and so on. Then are given the Pauranic hymns of the Foundation laying with their Vedic counter-parts. In the end it is indicated, that well-laid foundation stones and pillars should in no case be disturbed otherwise misfortunes may befall man. A well-laid foundation is an augury of the completion of building, be it a temple or a palace or a residential quarter.

CHAPTER XXIV

Kīlaka-Sūtrapāta (The First Operations).

This chapter too is full of theological details of offering and

worship in the laying of the nails, the kīlakas, the characteristics as hinted in the Foundation are almost similar, with the addition that herein, a very interesting light is thrown on the status of the masons and labourers engaged in the building of the house. The architect's position was in no way inferior to that of the Āchārya—the Purohita and his companion astrologer Sāmvatsarika—the triad representing Brahmā, Bṛhaspati and Tvaṣṭā (Vāstoṣpati or Viśvakarmā). Hence they too are offered worship with their companions and the labourers. After the ritualistic ceremonies are attended in the laying of the nails, it may be said that the architectural details regarding the nails however, are not wanting. In the employment of the wood for the construction of the nails, the trees deemed fit are the trees having names in masculine gender, such as Khadira, Udumbara, Aśvattha, Śāla, Śāka, Dhava, Arjuna, Añjana, Kadara, Aśoka, Tiniśa, Aruṇa, Candana, Sirīṣa, Sarja, Nyagrodha, and Veṇu etc. Among these a a classification is made caste-wise and profession-wise. As regards the dimensions of the nails, it is stated that those belonging to Brāhmaṇas, should measure thirty two aṅgulas in length, those to Kṣatriyas 28, Vaiśyas 24, and Sūdras 20; the width however, should be common i.e. six aṅgulas. As regards the shape of these columns, it should be square in case of Brāhmaṇas, octagonal in case of Kṣatriyas, hexagonal in case of both the Vaiśyas and Śūdras. Then follow the quality and material of the ropes to be tied down in nails in their laying operations. It should be Dārbha (made of Darbha grass) Mauñja (made of Muñja grass) Aurṇa (made of wool) and Kārpāsa (made of cotton) respectively, as they belong to Brāhmaṇas, Kṣatriyas, Vaiśyas and Śūdras.

Another interesting item of this chapter is the process of laying the nail-pillar as brought out by the Śaṅkutāḍana. As many as eight blows should be given on the head of the nail-pillar and in this process if the pillar sits well in the pit, it is considered auspicious, otherwise inauspicious and in later case Śāntika is enjoined. Again if during these blows, it gives way and the blow giving hands themselves give way, it is considered inauspicious.

CHAPTER XXV

Pīṭhamāna (The Measurement of the Pedestal)

The Pīṭhas are classified as Uttama, Madhyama and Kaniṣṭha i.e. superior, middle and inferior types. The height of the Pīṭha (Pedestal) of the Uttama type should be twice the height of the base; of the middle 1½ and of the inferior only 1 part. It is to be noted that only the triad—Brahmā, Viṣṇu and Maheśa can have the Uttama type of the Pitha. The Pīṭhas of the other gods should be of the middle

type. The Pīṭhas in the residential houses of men may be equal to those of the gods but they should in no case be higher than them. It is interesting to note that in the Rājaveśma, the Pīṭhas should be as high as Deva-pīṭhas rather it may be still higher, because the text eulogises king as the fifth of the lokapālas. The Pīṭhas of the four castes are then enumerated. The height of the Brāhmaṇa 36 aṅgulas, of the others less by 4 aṅgulas successively.

(B) The Palace Architecture

CHAPTER XXVI.

Rājaniveśa (The Planning of a Royal Palace)

After the town is planned in all its broad outlines—fortification, roads, streets, gates etc together with the assignment of the places of both the classes of deities, the internal and the external ones, the first priority must be given to the construction of the palace of the king in the town. Herein are given the details of the site plan and the categories of the Palace as well as its fortification all round. With these preliminary remarks the text describes in details the different chambers of the palace suited to the different members of the family of the king and paraphernalia of his establishment, a detailed notice of which has been taken in this study—vide Pt. IV.

CHAPTER XXVII.

Rājagṛha (The Various types of Palaces)

In the two chapters (XV and XXX) devoted to the Palace Architecture, the subject matter differs, while in the former the palace described is the type which is fit to be the abode of a ruling monarch with all his establishments and sets up, domestic, recreational and administrative. It is prescribed to be planned on the model of Śālā architecture—no storeys, only court-yards and rooms, in the latter as many as fiteen type of palaces have been described and, therefore, both differ fundamentally in the architectural details and the use thereof. To the capitals, the former is the most suited type. The latter variety with its characteristics of mansion-like super-structures is fit only to be occupied occasionally and perhaps built not in the capital but scattered here and there on the places forming the secondary residences.

The most characteristic features of the architecture of these palaces is their excessive use of the Pillars. These palaces give an impression of pillared-hall structures, though the employment of the storeys have made them ostentatious buildings. The fifteen varieties of the Rājagṛha with the number of their pillars and storeys together with other characteristics are tabulated in part IV.

CHAPTER XXVIII.

Sabhā (The Assembly Hall).

Sabhā here means a public hall or a council-chamber. The special features of the Sabhā in Vedic times were their pillars and fire-altars. This characteristic of pillars is retained in the planning of Sabhā in the Samarāṅgaṇa-Sūtradhāra. Nandā, Bhadrā, Jayā, Pūrṇā, Bhāvitā, Dakṣā, Pravarā and Vidurā—these are the eight varieties of the Sabhā, special features of the first five varieties is the excessive application of the pillars as many as thirty-six in each of them, together with terraces, all round. The sixth, seventh and eighth varieties however, it seems that apart from the architectural details, may have corridors also.

CHAPTER XXIX.

Gajaśālā—(Stables for Elephants).

1. Subhadrā
2. Nandinī
3. Subhogadā
4. Bhadrikā
5. Varṣaṇī
6. Pramārikā

Theses are the six varieties of the Śālā of the Elephants. The special architectural characteristics of the first five Gajaśālās is an application of the Prāgrīvas, the windows, Alindas, the corridors and the Nirvyūhas the towers on than in different modes and directions thereof, while the last viz. Pramārikā is devoid of any such application and is deemed unfit for use, being inauspicious. Therefore, the text recommends the use of only first five varieties.

CHAPTER XXX.

Aśvaśāla—(The Stables for the Horses).

Nowhere in any other extant work on the Vāstu-Śāstra are such brilliant, beautiful and detailed accounts of the Aśvaśālā given. Aśvaśāla being one of the most important accessory buildings in the royal compound (and the horse being the most dignified royal vehicle) when described by an author, who was himself a king and that king was Bhoja of Dhārā, it is natural that the description should be copious and most upto date. Such is the case in the present chapter. Every detail is charming and hence it is tempting to translate the whole chapter rather than to summarise it.

An Aśvaśāla should be planned in the very compound of the owner viz. royal compound on the site of Gandharva or Puṣpadanta. Its dimensions vary in its respective varieties of the superior, the middle and the inferior types from 100 Aratnis to 80 andto 60 respectively. Then follow the auspicious places where this structure is to be made onan auspious date with the auspicious wood. A stable for horses

should in no case be built on the prohibited sites, nor should prohibited wood be employed, it should be selected with great care.

In the planning of an Aśvaśāla special care is to be taken regarding its placing in such a manner in the vicinity of the royal palace, that at the time of coming out of the stable, the horses should occupy the left side of the king. It should be in the South of the Queen's chamber and when the king enters there, neighing should be heard on the right. Aśvaśālas should be built architecturally beautiful with the application of the corridors, windows, arches, Kuḍyas and Nāgadantas. Its gates should be placed either towards, the East or towards the North. Aśvaśālā, according to the Samarāṅgaṇa-Sūtradhāra, is a beautiful specimen of wooden architecture, in which all its component parts, beams, windows, arches, shutters, pillars, etc., etc. are all made of wood in superior craftmanship.

Then the author proceeds with the details of the several establishments of the shed, such as Yavasthāna (grass-pot) Khādana-koṣṭha (what we call Nānda). Details of the probing of the horses are also given. It is enjoined that every season the stable for horses need be cleaned, the storage and collection of the implements in a horse-stable and other necessary articles are also enumerated.

Then follow the detailed rules of the bathing, clothing, worship and other daily routine of the horses. Again the rules regarding the fastening of the horses in the quarters of the respective directions are given. Particular rules are also given of the ailing horses and their housing etc. quite separately from the healthy ones for fear of the infection. At the end of the chapter the necessary buildings of the Aśvaśāla are described and they are:—

1. Store House.
2. Laying-in-Chamber for she-horses.
3. Dispensary.
4. Veterinary hospital.

The particular directions regarding the placing of these four auxiliary members of the establishment are: they should not contain any śālā, though decorated with Kuḍyas, Prāgrīvas and arches.

CHAPTER XXXI.

Āyatana-Niveśa—(The Shrines).

This chapter requires a special notice. The Āyatana is a bit confusing. It should be taken here in the sense of a shrine the accepted meaning in the literature, though its earlier denotation of a house also was in vogue. By the time of Bhoja, Āyatana, I am sure, must have acquired a meaning of a shrine or temple as is evident

from the last verse of this chapter (cf 'Surabhavanāni'). My interpretation of the word Āyatana in the sense of a shrine is necessitated by a confusing impression created by the contents as prepared by the learned editor Pt. T. Ganapati Sastri who takes this word in both the senses. If the word Āyatana is indicative of the royal houses or the accessory royal mansions, the separate treatment of the Palace architecture (inclusive of the accessory buildings and establishments like the queen's chambers and the residences of the princesses and princes' etc.) must not have been done in two separate chapters (cf. 15th and 30th). According to my interpretation of the term, Āyatana this chapter deals with the shrine as got built by the devoted servants of the king and beloved members of his family in the same enclosure or compound in which the temples, the Prāsādas have been built by the king himself. This is evident from the very arrangement of this chapter in continuation to the Temple-Architecture.

(C) Residential Houses.

CHAPTERS XXXII to XXXVI.

1. Ekaśālas
2. Dviśālas
3. Triśālas
4. Catuśśālas
5. Pancaśālas and other classifications upto Daśaśālas.

The contents of all these five chapters have been extensively utilised in the study of house-architecture the Śālā-houses and other buildings. Hence for brevity's sake I will not repeat them here. It is enough to indicate here that the planning of human dwellings—the residential houses of the middle class people, the poor and the rich cannot be of the same quality, size, dimensions, and richness of material and ornamentation, as the means and purposes of the people belonging to differents trata of society differ in planning a house. Again the house of an ordinary man, a king and a god must also differ. In all the texts this distinction between residential quarters of men of ordinary means and the ostentatious buildings like Harmya, Vimāna or Prāsāda are not maintained. Hence it is one of the chief contributions of the author of this work to present a very big variety of the śālā-houses from one-roomed accommodation to ten-roomed one, suited to the needs and means of all classes of residents. In these chapters not only the broad classifications of the ten types of Śālā-houses, one-roomed to ten-roomed, are made, but their manifold varieties and sub-varieties are also described in detail, together with some of the allied topics relating to the court-yards and other component parts of the residen-

tial houses. It is enough here to indicate in brief the number of each type of Śālā-houses:

1.	Ekaśāla	108	50	As given in the Aṣṭāṅga.
2.	Dviśāla	52	500	
3.	Triśāla	72	100	
4.	Catuśśāla	256	841	
5.	Pañcaśāla	1025		
6.	Saṭśāla	4096		
7.	Saptaśāla	18176		
8.	Aṣṭaśāla	65536		
9.	Navaśāla	262.44		
10.	Daśaśāla	1048576		

CHAPTER XXXVII.

Nimnoccādi-Phala (The Declivity etc- as well as miscellaneous Varieties of the houses).

This chapter has got a miscellaneous character where in specifications of the ground plot together with its declivity and other physiographical features are taken into account. This chapter also is informative in regard to the placing of the corridors in a particular direction and its merits and demerits are unfolded. The four-fold varieties of houses like Sacchatra, Sakakṣa, Saparikrama and Saprabha are defined. It has also enumerated the gerneral auspicious and inauspicious varieties of the Śīlā houses.

CHAPTER XXXVIII

Dvārapīṭhabhittimānādi.

Like the previous one this chapter too is of miscellaneous nature, a special enumeration of the Śālā-class of houses 15 in number, beginning with the Īśvara etc. is to be particularly noticed here. Again it has described the five-fold Vargādhipas group-numbers 16, 20, 24, 28 and 32. It has also described the measurements relating to the walls, courtyards, pedestals, doors and their height etc. In the end it has described the four special varieties, the very auspicious houses namely, Bhadra, Nandapīṭha, Saurabha and Puṣkara. They result from a particular planning of the Śīlās along with the entrances etc.

(D) House Architecture in Details of the Material, Masonry and Decorations, etc.

CHAPTER XXXIX.

Vana-Praveśa (Entry into the Forest).

Wood was the earliest material employed not only in the architectural construction but in the fashioning of the sculptural objects like images of the gods and goddesses also. In Varāhmihira's Bṛhatsaṁhitā, the Vanasampraveśādhyāya is written in relation to

the employment of wood in the art of image-making. Here in this text, the aim of this chapter is to bring material from the forest for the construction of the houses. Hence the selection of the material, the fitness of certain trees, together with other allied details, though identical in both the texts, have different purposes in hand.

The chapter opens with the auspicious dates and days when the entry into the forest for bringing wood for house-construction should be made; then lays down details regarding the ceremonies and rituals in connection with the selection of the trees. Then a list of trees which are to be avoided in the search for proper wood is given. Trees, which grow in towns, on cremation ground, villages, by the side of the roads, on the tanks, in the vicinity of temples and hermitages, fields, gardens, interiors of the frontirs, on unfit soils, like those having a taste bitter, saltish, etc. etc. and those covered with ant-hills, are not to be selected by the architect.

Now the trees having been selected, the operation of cutting with an axe consists of certain rites and rituals of the Śāntika, and offering (Bali) together with the worship of gods in the night, is also enjoined upon before cutting. The offerings are made to propitiate the trees and their presiding spirits with the mantras quoted in the text. In the cutting operation if some unfavourable signs, such as flowing of blood honey, milk and clarified butter are noticed, the trees should be deemed unfit for employment in construction and they bring misfortune. On the other hand, if during the operation a profusion of the blackish, sweetish, fragrant or kaṣāya liquid comes out, it is deemed fit. Similarly the falling of a tree in a particular direction say East, or North or its falling at a distance making sounds and producing air, is considered good, otherwise it is abandoned after offering Śāntika. Similarly the infant and old (Bāla and Vṛddha) trees are also to be avoided. The colour, the oil and the bark are the criteria by which the age of the trees is ascertaind. For example, the age of the Śāla tree is three hundred years. It can be used only when it attains the age of sixteen and upto one hundred fifty. Hence trees of unfit age should be abandoned and also those which are fit in age but otherwise unfit, should be abandoned. Next is given another list of fit and unfit trees. In the end, certain technicalities called the maṇḍalas observed during the cutting operations and indicative of the animals and insects underneath the trees are described.

CHAPTER XL.

Gṛhadravya-Pramāṇa (The proportions and the component parts of the house)

The word Dravya here does not mean, the brick, lime etc., but

the component parts of a house. The principal parts of the house are the doors and their constituent parts like Pedyā-piṇḍa, Udumbara (lintel), Dvārśākhās, the door frames; the pillars with their bases, emtablature, and mouldings and the Tala (storeys and floors), the Śālā, the rooms and the Chhādyas (the roofs).

All these have been described in detail and the proportionate measurement given thereof. The length of the house in Hasta form the length of the door in Angulas. In Mānasāra it is stated that the height of the door should be twice its width. If this proportion is adopted, the residential house would be inconvenient for entry and exit, as generally the width of the door is 3 feet in modern terms of measurement. The Samarāṅgaṇa-Sūtradhāra, however, modifies this by prescribing the height of 7 Hastas and the width the half of it. An alternative measurement of the door is also given. Then follows the dimensions of the constituent parts of the door above mentioned. The different door frames such as Śākhā, Rūpaśākhā, Khalvaśākhā, Bāhyamaṇḍalā and Bhinnaśākhā with their proportions are described. The five varieties of auspicious Śākhās are given names as Devī, Nandinī, Sundarī, Priyānanā and Bhadrā. Then the details of dimensions of the courts and storeys are given. The height of the storey varies in superior, middle and inferior types of the houses as 7, 6 and 5 hastas respectively. The dimensions of the Śālā—the rooms also vary with the types of the houses. The floors are described and then follows the description of four varieties of pillars with their bases, entablatures and the mouldings and these are—1. Padmaka 2. Ghaṭa-pallavaka 3. Kubera and 4. Śrīdhara. In the end are given the details of the four types of roofs, the Chhādya :—1. Bhūta 2. Tilaka 3. Maṇḍala and 4. Kumuda. Lastly it is directed that the mouldings like Siṃha-karṇa etc. (cf. 55-56 Vs.) are not fit to be employed in secular architecture—the residential houses.

CHAPTER XLI.

Dvāraguṇadoṣa (The door and its Merits and Demerits.)

This chapter is encyclopaedic in nature. The door has formed a separate chapter in the Study (Part III). There all the details are examined. Here it is enough to say that though avowedly it deals with the doors, their varieties, their placing in a particular direction and on a particular site presided over by a particular deity, it also throws side-lights on some of the elements of architecture, such as the number of the storeys that houses belonging to different castes and communities can have. Another important topic of description in this chapter is the doctrine of Vedha. Vedha of the door with street

(Rathyā), platform etc. etc. must be avoided (see details in the Study Proper.)

Then follow the qualities of the doors. Other details like building byelaws can also be seen in the Study (cf. Part III.)

CHAPTER XLII.

Cayavidhi (The Masonry.)

This chapter is also unique. Masonry has not formed a topic in any of the extant works. The Mānasāra treats only the Sandhi-karma (joinery of the timbers). Skill in masonry work represents the real ability of a mason. It should be so done in proportion and material that it becomes an art by itself. This is the essence of this chapter. As many as twenty qualities and twenty defects of masonry are enumerated in the text. A special point that is made out is that walls in the masonry should never go astray, nor should they fall down, nor again should they break down. The chapter has given five-fold varieties of ill-worked masonry which indicates the height of the development of the art of masonry. All these show that masonry should be neither too deep nor too shallow. At the close of the chapter are described the implements, rules and the procedure in the art of masonry very much similar to those prevalent today.

CHAPTER XLIII

Aprayojyaprayojya (With what not to decorate and with what to decorate)

One of the most characteristic features of the ancient architecture was the institution of excessive ornamentation in the buildings and household furniture. In keeping with this architectural tradition of old, the Samarāṅgaṇa has devoted a full chapter under this heading to describe what things are to be decorated and what not in the buildings like houses, palaces, temples, assembly halls and the huosehold furniture, cots, coaches, pots, etc., as well as implements, ornaments, umbrellas, the flags and flag staffs, etc. etc.

A. The text first enumerates the following objects not fit to be employed for decoration in the secular buildings:—

1. All gods (only selected gods are fit to be decorated with) demons, planets, stars, yakṣas, gandharvas, rākṣasas, piśācas, pitṛs, pretas, siddhas, vidyādharas, nāgas, cāraṇas, bhūtasaṃ ghas with their wives and sons.
2. The Pratihāras, Pratihāriṇīs (gate-keepers—males and females) with their weapons.
3. The nymphs and their gaṇas.
4. Dīkṣitas, vow-keepers, pākhaṇḍīs, nāstikas, the hungry, the suffering humanity (from illness), captivity, weapon-wounds, fire-burns; etc. etc., impotents, nudes, blinds, deafs, the mads and idiots.

H.A. p. 457) tallies with the Samarāṅgaṇa's prescription regarding the ideal situation of a house. This is what it means by its doctrine of Bhūplavana (1-4). Similarly land which is barren, gravelish and full of bones, the kārpara etc. and loose, is to be avoided. The month when the works should not be undertaken are Caitra, Jyeṣṭha, Āṣāḍha, Bhādrapada, Āśvina, Kārtika and Māgha. Orientation of the buildings is equally important, absence of it, is technically called Diṅmūḍha planning and it should be avoided Therefore, a temple or a house should always be planned having a correct orientation. Then follow the four-fold varieties of a bad house technically called Valita etc., and their evil effects enumerated. Next follow the details of the bad ground (see Study). The Śālā varieties of residential house must have Mūṣās and Alindas, the temples are exception. The inauspicious houses like Khādaka etc., the entrances like Utsaṅga etc., the inauspicious doors like Nimnonnata, Karāla etc., the five varieties of the bad houses, consequent upon the inadequate (on some place) or excessive employment (at other places) of the material, the avoidance of the wood of imperishable variety, the prohibition of the placing of the door in the middle, the Vedha of any of these component parts either among themselves or with any other object outside together with the Bhaṅga etc.—all these are well developed. In the end are enumerated the common defects of the houses and the avoidance of which is inculcated at all cost.

CHAPTER XLVII

Śāntika-Vidhi

Though apparently this chapter gives a ritualistic impression, the fact is otherwise. It is simply a masterpiece on house architecture. It contains innumerable varieties of the architectural terms forming the component parts and elements of a house. An effort has been made to tabulate these in the appendix (Glossary). The Śāntika is enjoined if any of these parts is disturbed, spoiled, contaminated or it gives way. The procedure of Śāntika consists of the laying of a Karṇikā and its worship is attended by all the upacāras The Karṇikā is a fruit stock and it is brought for its plantation on the plot where the house is to be built. After it is laid down in the ground, the omens are observed (good or otherwise) and the results ascertained accordingly more particularly if any of the birds enumerated come and sit on it, it is deemed inauspicious. After this Śāntika is enjoined in connection with the Bhaṅga of any of the wooden joinery. Special mention may be made of the new houses (i. e. those which are not older than a year) and if anything there gives way, it must be observed and reported and Śāntika is to be performed.

IV. The Mechanical Contrivances and the Construction of the Household Furniture.

CHAPTER XLVIII.

Yantrādhyāya (The Machines)

This chapter is of unique importance as no other extent manual of Śilpa-śāstra, describes machines, though the construction of the machines is not beyond the scope of Architecture as we understood it (see Part I 'Scope'). The study of this chapter has formed a separate part of this Study, therefore, here only a brief notice may be taken. Yantra is defined—'the device by which the Mahābhūtas like earth, water, fire, air and ether are controlled viz. when the free and natural activities of these Bhūtas, the primary elements made to act in a particular manner by means of some device, it is Yantra. Its fundamental Bījas are the four Bhūtas, earth, water, fire and air and the ether being the substratum of all these, naturally becomes Bīja itself also. After this, the author describes in detail the manifold varieties of all these principal Bījas, then follow the qualities and the actions of Yantra.

Yantras consist firstly of the recreational type, such as Śayyā-prasarpaṇa from the first floor to upper floors; dolls' Nāḍīprabodhana, the display of the wonders—such as fire in water etc ; microscope-like Golakabhramaṇa machine, showing the movements of the heavenly bodies; wooden-man going a distance of as many as eight miles (one yojana); the dancing doll pouring oil in the lamps; wooden elephant drinking water in profusion; the wooden parrots, singing dancing etc.; Jalayantras bringing water from the vāpis, wells, etc. and depositing the same, so on and so forth; secondly those service-machines like wooden bird machine travelling in the sky, wooden vimāna-machine, i.e. the aeroplane, door-keeper machine, soldier machine, servant machines and maid servant machines; thirdly the machines of warfare like Śataghnī (100 killer) and Cāpayantras are also described. Fourthly, the most characteristic of the medieval yantras, the water machines are described. The Vāriyantras have four varieties (see Study). Another variety of water machines is the five-fold Dhārāgṛha. Lastly the five Rathadolās, the swinging machines (see ibid) are also enumerated.

With this brief notice of the chapter, it may be noted that in the construction of some of the aeroplane machine, the application of Pārada (the quick-silver) and the fire in them are some of the modern equipments of the aeroplanes and hence it is indicative of the fact (though disputed) of the existence of aeroplanes in ancient India. A

more careful examination of this question and other details of the chapter have been attempted in the Study Proper.

CHAPTER XLIX

Śayanāsana (The Couches and the Cots)

Whatever is planned, made, measured or constructed is Vāstu. A complete Vāstu-śāstra deals not only with the towns and temples and the residential houses, but also with sculpture, painting, Yantra and furniture etc. This chapter, therefore, is an illustration of the very broad scope of Indian Architecture. The contents of this chapter are unique in the respect that nowhere is such a beautiful account with all the details in connection with the construction of the sleeping couches to be found. The operations on the sleeping couches should be started in an auspicious moment. The wood employed must be of the good and auspicious variety of trees like Candana, Tiniśa, Arjuna, Tinduka, Śāla, Śāka, Śirīṣa, Āsana, Dhanvana, Haridru, Devadāru, Syandana, Oka, Padmaka, Śrīparṇī, Dadhiparṇī, Śiṁśipā, and other auspicious ones. The inauspicious trees as referred to in the house construction are also prohibited here. The cots which are knotted or interwoven with gold, silver, ivory or brass are deemed more auspicious. Then follows the dimensions of the cots in relation to those who would use them. The superior quality of cots of a king should measure 108 Aṅgulas, the middle 104, the inferior 100, the cots of princes 90, ministers 84, the commander-in-chief 78 and the Purohita 72. Twice the width should be the length of a cot in every variety. The cots of Brāhmaṇas are 70 Aṅgulas in length and less by 2 Aṅgulas of other castes viz Kṣatriyas 68, Vaiśyas 66 and Śūdras 64. Then follow the different parts of the cots. They are Utpala, Īśādaṇḍa, Kuṣya and Pādas etc. All these parts should be carved out beautifully in leaves, birds, etc. Particular consideration need be given to the employment of only one kind of wood material. Two different varieties of wood are not auspicious and the cot constructed in three different varieties of wood leads to instantaneous death of the occupant. After these, details of the construction follow. A cot should be free from knots and holes and should not be loose enough and weak enough to be shaken while occupying it. It should be Suśliṣṭa—well laid, strong and stationary. The knots and holes must be avoided at all costs. The six varieties of holes are :—

1. Niṣkuṭa
2. Koladṛk
3. Kroḍanayana
4. Vatsanābhaka
5. Kālaka and
6. Bandhana

After this the details of Āsana, the seats and their parts are described. The wood is the same. The parts of an Āsana viz,

Puṣkara, Sūda-hasta, Phalaka, Bhūlaka etc. are then described. In the end are described certain other articles of household furniture like, Kankata, Darvī and Pādukās.

V. The Prāsāda Architecture (Temples).

A. Prāsādas Proper.

Group (a) (I) Type.

CHAPTER L.

Rucaka etc. 64 Prāsādas

Here in this initial chapter on Prāsāda architecture the origin of the Prāsādas has been indicated. It is said that the Creator Brahmā, the founder Lord of the Vāstu-Vidyā, created five big and beautiful Vimānas, movable in the path of the sky, made of gold and decorated with jewels—they were Vairāja, Kailāśa, Puṣpaka, Maṇika and Triviṣṭapa to be used by Himself, the Trident-bearer Śiva, Lord of wealth Kubera, Noose-holder Varuṇa and the Lord of the Universe the great Viṣṇu respectively. Similarly he also created other Vimānas for the gods like Sun and others. From the selfsame five Vimānas, he then created five Prāsādas, to be built of stone or burnt brick for the adoration of the towns. Their names being the same and in shape Vairāja is square, Kailāśa circular or oval, Puṣpaka rectangular, Maṇika elliptical and Triviṣṭapa octagonal.

Then follow the 24 varieties of square Vairāja, ten varieties of circular Kailāśa, ten varieties of rectangular Puṣpaka, ten varieties of elliptical Māṇika and lastly the ten varieties of octagonal Triviṣṭapaka, thus making the total 64 and each variety described in detail.

Special characteristics of these Temples are firstly their super-structures being devoid of Śikharas, (the most common characteristics of the later phases of temple architecture) and their roofs being of the Chhādya variety, and secondly, these are hall temples with excessive application of the pillars, built in the material of wood with so many other wooden joineries. The temples are an illustration of the initial stage of development of temple architecture in India when the employment of wood was the rule of the day (cf. the wooden origin of the Indian Architecture).

CHAPTER LI.

Prāsādajāti (Geneology of the Prāsādas)

Brahmā, the first Lord, Vairāja the first chariot and so Vairāja was the first Prasāda.

The sublimest praise of this primordial type connected with the Primordial Creator Himself hints at the Brāhmanic conception of the

Hindu Temple in unmistakable sense, a notice of which is taken in the Study Proper (vide Denotation and Connotation of the Prāsāda and Planning of the Prāsāda (chap. II and X). The text has bestowed upon this first type of the Hindu temple all the ornamentation and decorative elements of Hindu Architecture (S. S. 52. 79).

Next follow the series of temple-types springing from the Vairāja, the primordial type in the following succession :—

1st Series	2nd Series
1. Svastika	1. Svastika
2. Catuśśāla	2. Śrītaru
3. Triśāla	3. Kṣitibhūṣaṇa
4. Hiraṇyaka	4. Bhūjaya
5. Siddhārtha	5. Vijaya
6. Dviśāla	6. Bhadra
7. Ekaśāla	7. Śrīkūṭa
8. Kumbhaka	8. Uṣṇīṣa
9. Vimāna	9. Nandyāvarta
10. Vana	10. Vimāna
11. Vīra	11. Sarvatobhadra
12. Caturmukha	12. Vimuktakoṇa.

3rd Series

1. Svastika	gave	rise	to	Rucaka
2. Śritaru	,,	,,	,,	Siṁhapañjara
3. Kṣitibhūṣaṇa	,,	,,	,,	Śāla
4. Bhujaya	,,	,,	,,	Gajayūthapa
5. Vijaya	,,	,,	,,	Avataṁśa
6. Bhadra	,,	,,	,,	Nandī
7. Śrīkūṭa	,,	,,	,,	Citrakūṭa
8. Uṣṇīṣa	,,	,,	,,	Pramadāpriya
9. Nandyāvarta	,,	,,	,,	Vyāmiśra
10. Vimāna	,,	,,	,,	Hastijātika
11. Sarvatobhadra	,,	,,	,,	Kubera
12. Muktakoṇa or (Vimuktakoṇa)	,,	,,	,,	Dharādhara

All these varieties can be multiplied in the superior, middle a inferior types. Another special variety born of the Vairāja is eightfold Śikharottama Prāsādas (having the super-structure or the Śikhara, the characteristic feature of the Nāgara temples in monuments, the specimen of which are found in Khajuraho, Bhuvaneśvara and in so many other parts of Northern India). They are Rucaka,

Vardhamānaka, Avataṁsa, Bhadra, Sarvatobhadra, Muktakoṇaka, Meru and Mandara. These are all Brahmajātikas and belonging to one and the same family and are highly extolled—the superior most types of the temple types. They should be planned likewise. From these are born their sons and grand sons keeping their blood unmixed, multiplying their names and these temples are very auspicious best-owers of prosperity and fulfillers of desires. They should not be contaminated with the mixture of other family and if it is done, it is an augury of bad days.

CHAPTER LII **Prāsāda-Dvāramānādi**

CHAPTER LIII **Jaghanya-Vāstu-Dvāra.**

CHAPTER LIV **Prāsāda-Śubhāśubha-Lakṣhaṇa.**

The first chapter deals with the different and manifold elements of the temple architecture along with the component parts of a temple, a detailed tabulation of all these will be found in the study proper.

The second chapter has the similar theme. It gives the proportionate measurements of the principal parts of a Nirandhāra Prāsāda having Jaghanya-Vāstu (Tirgāyata) more especially of the door.

The third chapter in this series enumerates structural merits and demerits of the Prāsāda a tabulation of which can be seen elsewhere.

II. Second Type.

CHAPTER LV.

Rucakādi-Prāsādas—Rucaka etc. 65 Temples.

"From now onward, I shall be describing the sixty-four temples, Rucaka etc. having the super-structure of Śikhara, with the details of names and designations in succession. From the five Vimānas formerly described, all the twenty-four Prāsādas took their shapes. The Śikharas of manifold shapes are their principal characteristic features. Another feature is that some are decorated with only one Aṇḍa, some with three and others with five with the slight difference, all these varieties are virtuous and bestowers of all desires. When made in gold or silver and studded with jewels—maṇi, muktā, prabāla etc. and decorated with ornaments, they are the favourite ones to the gods and they are free to move anywhere they like, when they are otherwise good but made of brass, copper, etc. they belong to Piśācas, Nāgas and Rākṣasas. Both these varieties are called 'Devalokas'. When they are otherwise good but made of stone (obtained from Sphaṭika Śilā), they are appropriate to denizens of the Pātāla; but when made in burnt brick, wood and stone, they please and bestow happiness both on the architect, the builder and the Yajamāna, the patron—they are the ornaments of the town and bestowers of

prosperity, earthly and spiritual and these in their designation and other details are now being described".

These 64 Prāsādas are described in detail under the three classifications:—

1.	Lalita-Prāsādas	25	All these are tabulated with names and shapes and other characteristics in a chart (see Part V).
2.	Sāndhāra Prāsādas	25	
3.	Miśraka Prāsādas (including Nigūḍha)	14	
	Total	64	

A special feature of these temples is their Aṇḍaka-vartanā, the employment of spires from one to one hundred one—the latter being bestowed upon the Prāsādaraja Meru—so much eulogised in both these chapters (55, 56). Another architectural characteristic is the excessive employment of the Rathikās, the buttresses, in super-structure. Another point to note in connection with the construction of this temple Meru is that the canons of its architect, the Sthapati and the builder, the Yajamāna are assigned castewise. Only a Kṣatriya can be its builder, only a Vaiśya its master architect and if this rule is violated, misfortunes may befall them (see lines 36-43/56). In the end, the Parivāradevatās in these temples and the gods so enumerated have an iconographical interest.

III. Type.

CHAPTER LVI.

Prāsāda-Stavana—The Dedication of the Temples.

The dedication of 8 Prāsādas to each of the principal members of Hindu Pantheon—Śiva, Viṣṇu, Brahmā, Sūrya, Durgā, Gaṇeśa, and Lakṣmī together with the common mass of divinity—Sarvadevas, is made. The opening lines hint at the origin of these temples as having come down from Brahmā through Viśvakarmā.

CHAPTER LVII.

Vimāna etc. 65 Prāsādas.

The dedicated Prāsādas are described in detail here. Some of these varieties are illustrative of some of the fundamental factors of the origin of the temple from the points of view of materials, shapes and super-structures. Among them the Prāsāda, Layana and Guhādhara are most respresentative of the Prāsādas in the monuments. Similarly the Prāsāda Paṭṭiśa; the temple made of cloth, Prāsāda Vibhava made of clay or wood; and others made of brick or stone, are also remarkable.

Again as regards the architectural characteristics, it may be noted that superstructure, the pyramidal shape of Śikhara, though retained, has been modified by the storeys. Similary the measurements of some of the crowning parts like Veṇukośa have also undergone modification.

CHAPTER LVIII.

Mervādiśoḍaśa Prāsāda—Meru and others (16 Prāsādas).

This chapter gives a glowing account of a group of sixteen Prāsādas beginning with Meru (see others in the Study proper). The temple Meru heads the list and is given a special treatment eulogised as Prāsādarāja—king of Prāsādas. I am, therefore, compelled to take a detailed notice of it as gathered from this and other chapters on Meru.

Meru:—The number cf hastas in the measurement of the plot of Meru shonld be neither less than 33 nor more than 50. It should be then divided in 10 equal parts. The Garbha, the innermost sanctuary is to be laid in the middle with a water channel (or drain), then follow the details of Śṛṅgas (domes) and other mouldings and component parts required in the pyramidal super-structure in the likeness of the Mount Meru itself. It has as many as sixteen storeys. The crowning members are pitcher, Aṇḍa (egg i. e. Cupola), Veṇukośa Grīvā or neck. Thus the temple has a pyramidal structure with as many as sixteen storeys, four spires, four doors made of brick and stone. The builder of this temple earns the greater virtue than he could have got from distributing the gold in measure of Meru Mount itself. The mountains have provided. the choicest of the origins for the Prāsādas and Meru, the Parvatarāja is also the Prāsādarāja. Other details regarding the Prāsādarāja are: Karṇa-prāsādakas to be placed in all the directions having their faces to each direction in the measure of one-third of the Prāsāda site; the Maṇḍapa should be planned on the double the dimension of Prāsāda and the Jagatī double the dimension of the Maṇḍapa. Thus planned in the external establishments together with its own components, the temple emerges in the fullest of picture, well dressed and well decorated like a king with his ornaments Keyūra and armlets etc. Then are given the details of Parivāra-devatās to be placed in their particular directions in the temple and the measurements of the door. In end are given the details of the mouldings and other ornamentation of the component parts of the building of the temple.

A special point regarding these temples is that while Kailāśa, Garuḍa, Padma, Dvipa are reserved for Maheśvara, Viṣṇu, Brahmā,

and Gaṇeṣa respectively and cannot be dedicated to the other gods, the other temples are the common property of all the gods.

Mervādi-Viṁśikā (S. S. 57th Chapter).

N. B. The name of this chapter belies its contents. It is the longest chapter not only in the Samarāṅgaṇa, but in the whole of literature dealing with Architecture. In the former part are dealt with the superior variety of fifty Prāsādas beginning with Śrīdhara etc. and, therefore, should form contents of a separate chapter and in the latter are dealt with these Meru and others (numbering twenty). Another thing to note in this connection is that a good number of verses are missing and hence description of some of the varieties in the former group are wanting. I split this long chapter into two equal chapters as 57 (a) and 57 (b) which in the reconstructed scheme are chapters LIX and LX.

CHAPTER LIX.

Śrīdhara-etc. 40 Temples of the pure type together with Nandanas etc. 10 temples of mixed, type.

Here in this chapter first the superior variety of 40 Prāsādas beginning with Śrīdhara is very eloquently described. We find in them not only the marvel of the architectural crafsmanship, but also the depth and eloquence of religious teacher giving sermons on 'Iṣṭāpūrta' (more particularly the Pūrta), the holy mission of human life and construction of the temples as the noblest and best means of its fulfilment. The author of the Samarāṅgaṇa-Sūtradhāra is here at his best. It is in these varieties that we can put into the ornamental style of the Lāṭa Architecture, the most characteristic ornamentative feature of the temple architecture in medieval period of Indian History. It was this period that produced some of the greatest and grandest temples in India, the specimens of which in the monuments are our great architectural heritage. I touched on this architecture, its styles and other points of importance in Part V, Temple Architecture. Here it is enough to say that the crowning part of the Nāgara temples, the Āmalaka is the chief ornamentation of these temples. The other manifold decorative motives are Śukanāsā, Kalaśa, Kūṭa-muṇḍa, Bīja-pūraka etc. etc. together with paintings of Vidyādharas, Haṁsas, leaves, etc. etc. all taken notice in the proper place. Again the perusal of the individual temples and the dedication to some deity or other and the virtue in different degree and kind—obtained by their construction are illustrative not only of the zenith to which the Paurāṇika Dharma, inculcating the image-worship and founding Tīrthas, and building temples had obtained but also the development of the Hindu pantheon (vide more than two dozens of gods who have

been described as the presiding lords of these temples) which it had reached.

All these types in their profound details are being worked out to be presented in the last volume—the architecture and sculpture of the Samarāṅgaṇa.

CHAPTER LX.

Meru etc. 20. Prāsādas.

Let the reader be not tired with the repetition of the type of the temple, the Prāsādarāja Meru as it has already formed fascination to not only of the gods who reside in it but also of the author who dwells at length upon it. Let this fascination be sustained to the reader and the writer also.

Meru heads the list of twenty temples. Let us have a glimpse of the paintings and mouldings of Meru in the ornamental style, the Lāṭa Style. Many names though repeated several times really belong to dissimilar types and groups forming the subject matter of the respective chapters and therefore they should not be taken as pure repetition. It is the Karma, the architecture, the style and the superstructure, dedication and size etc. which varies in various groups and types of temples. These twenty temples are really master-piece of Hindu Temple architecture at its zenith. A glowing dedication and glorious representation of the very developed temple institution both in its architectural as well as devotional aspects would not be found elsewhere. The reader is particularly referred to the quotations in the Vāstulakṣaṇa regarding the ornamental motifs of the class of types.

All these varieties (Meru and others) as described in this chapter with their curvilinear superstructure, the Śikhara, are the most particularly Indian amongst the monumental shapes of the temple. This is the pre-eminent shape of Hindu Temple. It formed the nucleus of many developments.

CHAPTER LXI.

Mervādi-Viṁśikā-Nāgara-Prāsāda (The twenty Nāgara Temples).

These twenty varieties of the Nāgara temples are the 'twenty temples' as described in the earliest of the treatises on Architecture as Viśvakarma-Prakāśa, Bṛhatsamhitā, Matsya-Purāṇa, and Bhaviṣya-Purāṇa. It is these which formed a nucleus of the later development of so many styles and types of temples within Nāgara school culminating in their most profound development in the Samarāṅgaṇa-Sūtradhāra where in chapter 57th as noticed before these varieties represent

a tall architectural development. Though, as it would be evident from the perusal of these varieties, they are of various shapes, a selection was made and five basic shapes were to ramify in the several schools of medieval architecture, cf. 45 varieties of Agnipurāṇa and also sixty four varieties of the Samarāṅgaṇa-Sūtradhāra. Thus the Samarāṅgaṇa-Sūtradhāra, the most authoritative compendium of medieval architecture, while dealing with all this ramification and off-shoots of the Nāgara style into so many temple types and the manifold varieties thereof, has not forgotten these progentitors (fathers) of the temples representing a liberal assortment of architectural shapes. There too Meru, the Prāsādarāja, so much glorified in this text heads the list. The most characteristic feature of these temples is not only the cluster Śikhara but also super-structure so developed as to form one to 16 storeys; Prāsādarāja Meru having as many as 16 storeys, 100 Śṛṅgas and four doors.

CHAPTER LXII.
Śrīkūṭādiṣaṭtriṃśat Prāsādas (36 Prāsādas beginning with Śrīkūṭa).

Here in this chapter the text in the very first line indicates the style of the temple architecture to which they belong. Though from the point of view of style an exhaustive survey has been done in chapter VI Part V, and all these Prāsādas described in this text are so arranged but it is helpful to allocate these Prāsādas at least for which the text itself offers the designation. All these varieties are technically arranged in six ṣaṭkas each an aggregate of six, viz.,

1. Śrīkūṭādiṣaṭka
2. Antarikṣa-ṣaṭka
3. Saubhājña-ṣaṭka
4. Sarvatobhadraṣaṭka
5. Citrakūṭaṣaṭka
6. Ujjayantaṣaṭka.

It may be noted that in the last saṭka i. e. Ujjayanta from which Meru, Mandara, Kailāśa and Kumbha are said to have been born are only so hinted and not described perhaps for the simple reason that these Prāsādas (Meru heading the list) are so many times described. Another point to note is that all these 36 principal varieties of Nāgara temples (with Śṛṅgas, Aṇḍakas, Śikharas etc.) characterised by Chādya etc., with their sub-divisions into superior, middle and inferior types assume the total one hundred and eight. The criterion however, of these superior, middle or inferior types being a slight difference hither and thither in the architectural planning. Lastly a particular mention which may be made of these temples as enumerated here in this list is that their proportions, as enjoined by

the text are too small to fit with great temples of the towns. The text further lays down that these are fit abodes of Yakṣas, Nāgas and Rākṣasas. Thus in my opinion these are little shrines fit to be built in hamlets and other small human settlements (the specimens of which abound everywhere in the country side).

N. B. Another equally notable temple style is Drāvida style (the second member of the triad, Vesara, the third member conspicuous by its absence and substituted by Vāvāṭa). The ternary has been developed into Pañcāyatana here—Nāgara, Lāṭa, Dravida, Vāvāṭa and Bhūmija with so many other sub-styles and types of temples.

CHAPTER LXIII.
Pīṭhapañcaka (The five-fold terraces).

CHAPTER LXIV.
Drāvida Prāsāda.

In the former chapter is indicated the subject matter of both the chapters—namely (a) the five-fold Pīṭhas suited to the Drāviḍa temples, (b) the five Talacchandas and (c) the 12 varieties of Drāviḍa Prāsādas, having one to 12 storeys. These Drāviḍa Prāsādas have no specific names, they are called by their generic varieties as Ekabhaumika to Dvādaśabhaumika. The distinguishing features of the Nāgara and Drāviḍa temples is that while in the former the crowning piece of the temples is Āmalaka, or its varieties (cf. S. S.) in the latter its counterpart is Sthūpikā with Kalaśa together with the surmounting śikhara divided into compartments like storeys, on the top of which as indicated just now are two kinds of crowning pieces, one like that on the 'shore temple', at Mammalapuram and the other like the one on the Gaṇeśa-ratha of that place.

The Samarāṅgaṇa, well acquainted with these distinguishing features of the Dravidian temples, curiously enough at the very outset, says that Drāviḍa temple may consist of storeys upto 12 in number and then the temples are classified according to their number of storeys. This is what exactly we find in all the South Indian Vāstu Texts. Again the Southern tradition of Pīṭhas or the terraces of the temples so lavishly found described in the Southern texts is retained in the Samarāṅgaṇa also which introduces this Drāviḍa style by devoting its description first to the terraces. These terraces are manifold and five principal ones so selected are technically called here Pādabandhana, Śrībandhana, Vedībandhana, Pratikrama and Churakabandhana. Similarly the Talacchandas in the Dravidian

style are also five according to this text relating the architectural genius They are as Padmatala, Mahāpadma, Vardhamān , Svastika, and Sarvatobhadra. These represent both the two broad divisions, namely Nirandhāra—(having no circumambulatory passage all round) and Sāndhāra (having circumambulatory passage all round).

These Talacchandas are accessory buildings which may take as many storeys as the central shrine—from one to twelve. These, in my opinion, are the proto-types of the later Gopurams characterised by storeys and huge super-structure.

CHAPTER LXV.

Digbhadra Prāsāda (The Vāvāṭa Style).

The very first line of this chapter designates these Prāsādas as Vāvāṭa Prāsādas and they are as many as twelve in number (see Part V). The word Vāvāṭa or more correctly Vairāṭa is of controversial nature among contemporary works on Hindu Temple. I have tried to critically examine their views and adding my own, under the chapter 'Styles'. Here it is enough to indicate that this is one of the regional styles developed somewhere in the vicinity of the modern Rajaputana and Gujarata and it might be a mixed style. But Samarāṅgaṇa Sūtradhāra epitomising all the prevalent styles with various ramifications into the manifold temple types, might be coining the terminology of some of the architectural evolutions as "Vairat has no place in the Sanskrit accounts of ancient Indian Geography" and Raja Bhoja must have coined this word to complete the triad by Vairāṭa (in place of Vesara) as the name of style called Vasara (so much talked in the contemporary discussions) does not occur in the Samarāṅgaṇa-Sūtradhāra. The Samarāṅgaṇa Sūtradhāra describes these Vāvāṭa temples similar in plan to Nāgara temples. The component parts together with the super structnre do not fit in with the existing monuments of the Nāgara temples. Hence they represent a mixed style.

CHAPTER LXVI.

Bhūmija Prāsāda

These are the pompous buildings, rich in architecural crafstmanship and representing an amalgamation of both Nāgara and Drāviḍa architecture (see Study, 'The Styles and Classifications'.) They are described in three groups of fourfold Square styles; seven-fold Vṛkṣajātikas and fivefold Aṣṭaśāla varieties (see Classification Part V).

The important element in the construction of these is the exhuberance of Rekhās, as many as twenty five (see Glossary) of the decora-

tive motifs (imitated from the Nāgara and the Lāṭa Styles). The Aparājita-pracchā develops this fascinating elements of Temple Architecture into still further varieties.

B. Maṇḍapas : Pavilions attached to the temples.

CHAPTER LXVII.

Maṇḍapalakṣaṇa—The Pavilions.

CHAPTER LXVIII.

Saptaviṁśatimaṇḍapa—27 Pavilions.

The import of the word, its different and divergent uses together with their architectural features, layouts, proportionate measurements and other details have been examined in a separate chapter (see Part V, Maṇḍapa). Here in these two chapters two broad types of Maṇḍapas have been described quite distinctly. In the former one are described the eight-fold varieties of Maṇḍapas, viz. Bhadra, Maṇḍana, Mahendra, Vardhamāna, Svastika, Sarvatobhadraka, Mahāpadma and Gṛharāja. These are characteristics of the varieties of proportions, otherwise they go after the Prāsādas, the main temples. The traditions still remind us that in some of the illustrations found in the monuments (Bhuvaneśvar) it is difficult to account for the distinguishing features of Maṇḍapas on the one side and the temples proper on the other. These eight Maṇḍapas are the representative proto-types of this traditional type in the art.

The second variety of the 27 Maṇḍapas, however, is not so unhelpful. The distinctive features of the Maṇḍapa architecture here is the abundant application of the columns and it is as if turning them into Hall-like structures (vide Hall-temples of 49 chapter). In the Matsya-Purāṇa, the 27 Maṇḍapas are distinguished according to the number of the columns, they are furnished with, the largest number being 64. The names and the chief features of these 27 Maṇḍapas though retained and maintained in the Samarāṅgaṇa-Sūtradhāra (a work of Eleventh Century A. D.), it has added some of the ornamentative features characteristic of the Medieval architecture of which it was the most representative, a detailed notice of which is taken in the Study proper (see Part V, Chapter X). The Maṇḍapas, as exhibited in the monuments, are not furnished with walls; the roofing is formed of large slabs of granite supported by monolethic pillars; but here in the Samarāṅgaṇa-Sūtradhāra the pillars are the main support, and roofing is excessively decorated as such with the predominent wooden motifs as well as different sets of mouldings characteristic of the ornamental Lāṭa Style. Again it may be pointed out that the author of

Samarāṅgaṇa-Sūtradhāra (vide the former chapter) classifies all the Maṇḍapas under the broad divisions Saṁvṛta and Vivṛta or attached, i. e. enclosed and detached within temples proper.

C-Jagatīs and Jagatī-prāsādas.

CHAPTER LXIX.

Jagatyṅga-Samudāya (The congregation or collection of the component parts of the Jagatī class of temple-buildings)

CHAPTER X LXX.

Jagatī-Lakaṣaṇa—The Jagatis defined.

Jagatis are terraces of raised up platform-like structures and form a class of temple buildings in themselves. In the Samarāṅgaṇa-Sūtradhāra there is an innovation regarding these structures. They are not exactly the pedestals or socles of the temples, they are rather independent structures, undoubtedly linked with the Prāsāda, the central shrine.

All possible shapes and the measurements together with their types as many as thirty nine are described in detail, a detailed notice of which has been taken notice of in the study proper (Part V under Jagati).

N. B. Thus so far we have summarised the contents relating to the House-architecture (47 Chapters); Temple - architecture (21 chapters) together with the mechanical architecture, Yantra-construction (one chapter) and the construction of the cots and couches (one chapter). Now follow the descriptions of Sculpture and Painting.

VI. Iconography (Sculpture)

(a) Sculpture proper

CHAPTER LXXI.

Liṅga-pīṭhapratimālakṣaṇa (Iconography of the phalli and their pedestals)

The chapter is very corrupt. The opening lines indicate the proportions of the Phallus in relation to the Prāsada and the material of which it is made, viz. wooden phallus would be double the size of the iron ones. The principal materials of which the phalli are made, are iron, wood, stone and clay. Different materials bestow different rewards. Then follow the detailed descriptions of Lokapāla-liṅgas to be established in the respective quarters. Then follow the details regarding the Pīṭhas. The pedestals of the

Phalli and their varieties are indicated and then they are given their designation and dedication. Then follow the technicalities regarding the distinguishing features of the respective phalli more particularly in connection with plaster, ointment and other elements —Mekhalā, Praṇāla, Brahma-śilā etc.—the constituent parts of the Phallus and its Pīṭha are also told. In the vicinity of Phallus the installation of the images of gods like Brahmā, Viṣṇu and other deities, is described. Iconographical proportions of both Phallus and the Pīṭha in relation to the proportion of the door of the temple are also indicated.

CHAPTER LXXII.

Devādirūpa-praharaṇa-samyogalakṣaṇa.

The Gods and Goddesses and their forms and Mudras (weapons etc.)

The chapter is fully studied line by line in the study proper —vide Vol II. Here it is enough to indicate that out of a very large number of gods and goddesses only a representative selection has been made by the author of the Samarāṅgaṇa-Sūtradhāra. Accordingly Brahmā, Śiva, Kārtikeya, Balabhadra and Viṣṇu among the famous gods and Lakṣmī and Kauśikī among the goddesses together with the Aśvins and some of the Dikpālas like Indra and Yama as well as Piśācas, Gandharvas etc. etc. have been described.

CHAPTER LXXIII.

Pratimā-Lakṣaṇa (Iconography).

Like the material of the Phallus, here in this chapter materials to be used in the images of the gods and goddesses in general are enumerated. They are *seven*—gold, silver, copper, stone, wood, lepya (clay-moulding) and citra and their respective virtues are extolled. Then follows the discipline to be undergone before undertaking this sacred task of image-making, keeping fast, offering oblations in the fire and practising japa and sleeping on ground, etc.

After this general introduction, the author now describes in detail the proportions of the image of a male figure beginning from eyes, ears, nose, chin, lips, forehead, cheeks, neck, chest, nevel, phallus, thighs, knees, feet fingers, nails, and ending into the hands and their fingers with their other component members. In the end are given the similar proportions of the limbs of the different parts of the female figures.

CHAPTER LXXIV.

Doṣaguṇa-Nirūpaṇa (The demerits and merits of images).

An image which looks beautiful, but does not conform to the rules of the Śāstra, having been moulded by a sculptor ignorant of the Śāstric injunction, is not worthy of possession. This is the open declaration and this tradition has been religiously maintained by the artists of India (See the list of the merits and demerits in the study proper).

(b) The Standard Measurements.

CHAPTER LXXV.

(Pañcapuruṣa-strīlakṣaṇa (The Standard models of proportions of the five-fold men and five-fold women).

As per the dictum of Varāhamihira, the ornamentation and dresses are to be provided for or employed in the images of gods and goddesses in the fashion of the country; the local characteristic styles of dresses and decorations are the standards in which the gods and goddesses are decorated and dressed. Similarly there has been an unbroken art tradition in India from Varāhamihira regarding the five principal heights and lengths having been recognised as standard types of male figures. It is in conformity to these five-fold proportions that the sculptors have been moulding their icons and images accordingly. The author of the Samarāṅgaṇa-Sūtradhāra, not only maintains this tradition but also adds one more, namely five types of proportions in case of females also This is the import of the chapter. Here the five male types described in detail are:—Haṁsa, Śaśa, Rucaka, Bhadra and Mālavya and their mānas being 88, 90, 92, 94 and 96 aṅgulas respectively. These figures do not tally with those given by the Bṛhatsamhitā of Varāhamihira. I have discussed all these points in Vol II. Then follow the detailed descriptions of all the limbs of all these types of men with full proportions In the end are given (though the chapter is very corrupt) the description of the five-fold women—Daṇḍinī, Vṛttā, Pauruṣī and Balāki (and the fifth one is missing).

(c) Mudrās

CHAPTER LXXVI, LXXVII and LXXVIII.

Ṛjvāgata Etc.-Sthānas

Vaiṣṇava Etc—Standing postures.

Patākā Etc:—Handposes.

A detailed notice of the contents of these chapters has already been made in the Study—vide Vol. II (published first). Here, in brief, it is

indicated that these three chapters describe the three broad categories of poses and postures in which the images of Hindu divinities are shown—hand poses (cf. Patākā etc. 78th Chapter), the postures of leg (cf. the Vaiṣṇava etc. 77th Chapter) and the composite poses of the body itself (cf. the Ṛjvāgata etc. the different attitudes—the nine principal attitudes—chapter 76th).

VII.—The Painting.

CHAPTER LXXIX.

Citroddeśa (The painting, its scope and the essential elements and implements).

This initial chapter on Painting opens with a fine eulogy to the pictorial art—the Citra as the mouth of all the arts and having a popular appeal. It then describes the three types of painting in relation to three types of background, Paṭa, Paṭṭa and Kuḍya. It then indicates the accessories like Vartikās, Plasters, colours and the Vartanī as well as measurements etc. etc. Then follows a detailed enumeration of the scope of the painting in relation to the divine, the mortals, animals and other beings. In the end are given eight essential constituents of the painting like Vartikā, Bhūmibandhan, Lekhya, Rekhā, Vartanā, colouring, etc. etc.

CHAPTER LXXX.

Bhūmibandha (The Vartikā and the backgrounds)

First are enumerated the places from where clay to be used in Vartikā may be procured. Then follow the details of the procedure of moulding it into a ball in which a quantity of cooked rice is to be mixed according to the time of seasons. Then are given its respective dimensions for the respective uses i. e. whether it is used in apprenticeship or in the finished delineations.

Then follows the process of the preparations of all the three types of background according to the three types of painting, namely the mural, the board and the cloth (Kuḍyabhūmibandhana, Paṭṭabhūmibandhana and the Paṭabhūmi-bandhana). For details see the Study (Vol. II).

CHAPTER LXXXI.

Lepyakarmādikam—The paints and the plasters and Brushes.

Lepya—the paints and the Lekhā, the Brushes—these are the two topics of this chapter. It opens with the process of collection of clay. The places from which the clay should be procured are enumerated. Then follow its colours having respective suitabilities for the respective

castes. This is the general characteristic of these manuals. After this are given the process of clearing it and grinding it into a levigated powder (kalka) after the liquids obtained from trees like Śālmalī, Māṣa, Kakubha etc. are also mixed with it along with the hair of horses or bullocks or the fibers of the coconut and the husks of corn. Other ingredients prescribed for the mixture are the equal quantity of sand to that of the clay and a certain amount of the cotton and Kaḍiśarkarā, the powder of limestone. All these then are to be pressed through cloth to make it fit for the ointment to be painted by the Kūrcaka, the brush (1-11½).

Then follows the second topic—the brushes (cf 12-22½). The brushes according to this text are of five-fold variety, like Kūrcanaka, Hastakūrcaka, etc. Then follow the substances of which they are made and their various shapes also indicated (see details in Study proper). In the end are given the instructions regarding the use of these brushes along with their sticks.

CHAPTER LXXXII.

Aṇḍaka-pramāṇa:—The Measurements of Aṇḍakas.

Aṇḍaka is a symbolism or sketch of painting. It has principally three varieties in general, Mukhāṇḍaka, Vṛttāṇḍaka and Alasāṇḍaka. All these are applicable in various paintings of various individuals, men, women, children, and gods, demi-gods and other celetial beings and even birds and animals not excluded. A detailed notice of all these has been taken in the study (Vol. II).

CHAPTER LXXXIII.

Mānotpatti:—The Standard measurements and other measurements and forms.

The chapter opens with the absolute measurements like 8 Paramāṇus being equal to one Raja etc. (cf. Chapter on Hasta, the 13th and for details see also the table in the Study, Vol. II). Then follow the proportions of the bodies of the gods and demi-gods etc. After this are given the interesting details regarding various forms of gods, demons, men, together with birds and animals like elephants, lions, tigers, serpents, etc. etc. viz. Gods have three forms—Cakara, Mut and Tīrṇaka; Rākṣasas, Durdara, Śakaṭa, Kūrma etc; Kinnaras, Mayūra, Kurbaṭa, Kāśa etc. the five-fold men, Hamsa etc.; the five-fold women, Valākā, Paurusī etc.; the elephants Bhadra, Manda, Mṛga, Miśra etc. etc All these forms are characteristic of the exhuberance of pictorial art in early medieval times.

CHAPTER LXXXIV.

Rasadṛṣṭilakṣaṇa:—The Rasas and Rasa-dṛṣṭis.

This chapter is unique in the respect that it represents the intimate relationship between the science of painting and that of dancing or more correctly the aesthetics The mute figures in sculpture and painting with different symbolisms of poses and postures, are made to convey their message and sublimest of sentiments. This is what is called Abhinaya in the Dramatics. Similarly when delineated upon as showing aestheticity of manifold varieties—the emotions, sentiments of various kinds, these images simply begin to speak. This is the real achievement of the master-painter.

Accordingly here in this Chapter, first as many as eleven Rasas beginning with Śṛṅgāra are described and then follow the eighteen Rasa-dṛṣṭis as accessories of all these principal Rasas. Both these sets have been tabulated with their characteristic physical and mental manifestations in Vol 11. In the end the. text (33 and 34th verses) has brought out very beautifully the implication of the aesthetics in relation to the pictorial art.

The Schools of Architecture and the Allocation of the Samarāṅgaṇa.

In the history of Indian Architecture it is not the schools but the orders or the styles that are most talked of. But when we study the works of architecture both architectural like Mānasāra, Mayamata, Viśvakarmīya-Śilpa, Agastya-Sakalādhikāra, Kāśyapa's Aṁśumad-bheda, Varāhamihira's Bṛhatsaṃhitā, Bhoja's Samarāṅgaṇa Sūtra-dhāra and others; and non-architectural like Āgamas—Kāmika, Suprabheda and a host of others; Purāṇas, particularly Mastya, Agni, Brahmāṇda, etc. and Pratiṣṭhā Granthas, and Pūjā-Paddhatis like Īśānaśivagurudeva's, Raghunandana's, and miscellaneous other works, like Haribhakti-vilāsa, Hemādri's Caturvarga-cintāmaṇi etc., we are bound to come to the conclusion that there were at least two distinct and different architectural traditions in our land.

These two streams of architectural traditions represent the two civilizations which were the precursors of the composite culture of India as we have evolved in these two thousand years. The rudimentary norms of Indian architecture go as far back as Vedic and pre-Vedic times of Indus Valley and Mesopotamian civilisations. One of the component parts of story of civilisation of mankind is the story of architecture that man had evolved in order to satisfy one of

the three fundamental necessities of life, the habitation; the other two being clothing and food.

Resuming the lost thread, from the study of architectural literature, there appear to be two different and distinct schools of architecture. This statement needs be elaborated. The system of classification of the temples or the palaces, differ in the two sets of works. In one the crowning part of the temple is Āmalaka, it is absent in the other. The names of pillars and their component mouldings also differ. In works like Mānasāra the names of most of the Prāsādas end in the suffix "kānta". It is not so in works like the S.S , the Matsyapurāṇa, Bṛhatsamhitā and others of group. The Vesara so much talked of as one of the triad—Nāgara, Drāvida and Vesara—is completely absent in the works like Matsyapurīṇa, Bṛhat-samhitā and Samarāṅgaṇa. Similarly names of residential houses and Maṇḍapas also differ. The Gopurams attached to temples are mentioned only in works like the Mānasāra and are completely absent in other treatises like the Samarāṅgaṇa.

All these differences, I may point out, revolve round the orbit of the temple, the chief feature of Indian architecture coming within the devotional architecture containing in it the Prāsādas, Cave-temples, Caityas, Vihāras, Stūpas, Column-halls, the Maṇḍapas and the towery Gopurams and the like. And as a matter of fact these are really the ancient monuments in the field of Indian architecture of which we can be proud of and by which the Indian architecture is worth the name. The devotional architecture is the outcome of the Bhakti-cult founded by the Purāṇas and Āgamas. The Pauranic Dharma, more popular in this part of the land—the Uttrāpatha, enjoined the consecration of the images of gods and goddesses in the Devālayas, with Vāpi, Kūpa, Tadāgas as the most virtuous act. Naturally, therefore, under the patronage of the devoted kings, religious minded wealthy people and the common men (not excluded) all contributed their mite in the construction of the temples and the enshrinements of the deities therein, in all parts of the land, afterwards known as Tīrthas. Similiarly, what the Purāṇas did for the North, the Āgamas did for the South. These two religious traditions are recorded and incorporated in the Purāṇas and Āgamas. There were correspondingly two architectural traditions in the works on the Vāstu-vidyā. This is one way in which we can explain the difference.

We know that in India the origin of a Śāstra is invariably connected with some God or great personage—Ṛṣi or Muni. Brahmā and Śiva have the largest share of founding so many systems of sciences and arts. The science of architecture too had a number of gods and sages and other heavenly beings as its originators, propounders and writer-Ācāryas. Two foremost names among them are Viśvakarmā and Maya. Viśvakarmā, the heavenly architect is alluded to in many places in the literature, to have built capitals of kings. Maya the demon-architect is similarly alluded to in many places in the literature, to have built assembly halls, etc. Viśvakarma and Maya are respectively called the originators of architecture on earth who in their turn got this sacred lore from the Creator-God Brahmā.

Dr. Bhattacharya, in his zeal for establishing the two principal schools of Indian Architecture, has tried to locate the mythical and real personages to two branches of the art (vide "Canons of Indian Architecture". Chapter XX). Of the twenty five preceptors of the Vāstu-vidyā whom he has taken notice of, on the authority of the Matsya Purāṇa, Bṛhatsṁhitā and Mānasāra, most of them are allocated to the Dravidian School and some to the Northern School. This list consists of names such as Bhṛgu, Atri, Vaiśiṣṭha, Viśvakarmā, Maya, Nārada, Nagnajit, Viśālākṣa, Anirudha, Śukra and Bṛhasapti. These are all the great sages of the past, in some way or other related to sacred scriptures of India. The other personages are, Manu, Parāśara, Kāśyapa, Bharadvāja ; Prahlāda, Agastya, and Mārkandeya etc.

On the authority of the scattered references in the literature; Dr. Bhattacharya takes all these teachers to be historical personages and not mythical personalities. I am not concerned with this controversial matter, my aim being the ascertainment of the place of the S. S., the most authoritative medieval compendium on architecture. I have therefore to take into my acconnt only this point of the learned doctor, namely, that he has mentioned Brahmā in the list of Ācaryas belonging to the pre-Sixth Century Drāviḍa Vāstu-vidyā, along with Śakra, Śukra, Maya, Bhṛgu, Bṛhaspati, Nārada, Nagnajit and Agastya (see page 206). Among the Acharyas of the Nagara school, the first and foremost place he allotts to Garga and then follow Parāśara, Vṛhadratha and Viśvakarmā.

As regards the available works dealing with the canons of architecture, Dr. Bhattacharya's allocation of the different treatises may be

tabulated as hereunder :—

Northern School	*Southern School*
1. Matsya-Purāṇa	1. Śaiva-Āgamas
2. Agni ,,	2. Vaiṣṇava Pañcarātras
3. Bhaviṣya ,,	3. Atri-Samhitā
4. Viśvakarma-prakāśa	4. Vaikhānasāgamas
5. Bṛhat-Samhitā	5. Mayamatam
6. Tantras like Kiraṇatantra	6. Śilpa-ratnam
7. Hayaśī,sa-Pañcarātra	7. Kāśyapas's Aṁśumadbheda
8. Samarāṅgaṇa-sūtradhāra	8. Viśvakarmīya-Śilpa
9. Viṣṇu-dharmottara	9. Dīpta-Tantra
10. Works of Maṇḍana	10. Agastya-Sakalādhikāra
12. Pratiṣṭhā-works like Hemadri's	11. Mānasāra
12. Vastu-ratnāvalī	12. Sanat-Kumār-Vāstuśāstra
13. Vāstu-pradīpa	13. Śilpa-saṅgraha
14. Haribhakti-vilāsa.	14. Īśānaśivagurudevapaddhati
	15. Tantra-samuccaya
	16. Citra-lakṣaṇa

The account of the traditional schools and their works as brought forth by Dr. Bhattacarya in his book 'A Study of Vāstu-Vidyā,' a pioneering work indeed, may not be taken for granted. It however, throws sufficient light, to enlighten some of the darker corners of the Hindu arcitectural traditions, handed down from generation to generation. Though these accounts may appear legendary, there is always some historical truth enshrined in them. The S. S. represents that period of history, the First Part of the Eleventh Century A. D. by the time of which a composite culture had been evolved by the admixture of the Aryan, Non-Aryan, Southern and Northren, Nagas and Asuras cultures Naturally, therefore, its accounts regardindg the architectural tradition of the past, give impression that these water-tight divisions of the two schools had lost their importance. Brahmā, the chief Progenitor of the Drāviḍa School is hailed here as the Founder of the Śāstra, Creator of the Vāstu (vide First Chapter of the S. S.). The self-same Creator Lord, Brahmā is the harbinger of the Prāsādas on the earth from the celestial Vimānas. Brahmā, the Creator Lord, entrusts the task of the planning of the world to Viśvakarmā. Creation in its primordial aspect of the evolution being done, it was left to two great personages, the first king Pṛthu and the heavenly architect, Viśvakarmā, to establish the order and law, the work of a king and habitations, villages, houses, forts, gardens, and places of manifold varieties to serve the needs of mankind, the work of a

founder architect. After creation, the levelling of the earth with all its mountains, rivers, rocks, seas and forests was the task of a patron king. Creator Brahmā installed Pṛthu (from whom the earth has assumed one of its names Pṛthvī), the lord of the world to supervise the planning and to fulfil the task of the right government, right society, right living, the fundamental pre-requisite of any cultural advancement. This is what is meant by Varṇāśrama-saṁsthāna-vibhāga and Mahāsamāgamana (Chapters VIII & I). It was the coordinated and co-related planning in which the trinity of Prthu, Pṛthvi and Viśvakarmā played the primordial role.

This Viśvakarmā, as the appointed missionary for the Universal Planning by the Lord Brahmā Himself, became the founder Architect on earth, the originator and the First Ācārya of the Aryan School, Nāgara School or Northern School. This is what the S. S. says to us. In Samarāṅgaṇa Viśvakarmā is made to transmit the architectural knowledge to his sons, the representative proto-types of the architectural tradition on the earth. He is the Pravaktā of the Śāstra. It is from his mouth that the canons of architectural science as propounded in the S. S. are laid down.

No one having even a cursory acquaintance with the contents of the S. S. will dispute its allocation to the Northern Vāstu-Vidyā as it is understood by the scholars like Dr. Bhattacharya who himself assigned this work to this branch. But apart from the regional and social considerations, I am inclined to say that the S. S. is the representative of the composite architecture of our land in which both the schools, though distinct and different in some respects in the beginning got themselves integrated to evolve neo-architecture. My contention regarding this fundamental aspect of the work will be amplified in the subsequent chapter of the Study (vide Prāsāda Part V).

In the end, I may touch on the pertinent problem of the sources from which it has drawn and the originality it can claim. I am of the definite view that the whole work is a master-piece of original contribution. Even some of the preliminary chapters (i. e. Mahadādisarga, Bhuvanakośa and Sahadevādhikāra, etc. etc) though drawn from the Purāṇas, are independent and original in sense that they are not reproductions. The Yantra, and the Citra—machines and paintings all these portion of the work are quite original. The House architecture is its special contribution. The S. S may be deemed as the founder of the civil architecture among the ancient classics of this branch of lore. Among the manifold varieties of the Prāsāda, dealt

with in this work, though some of the types represent the Pauranic classification of the Prāsādas, their ramifications into so many classificationions of the Prasadas with their architectural details are Samarāṅgaṇa's original contributions. Even in matters of the proportions, more particularly of the finial the geometrical progressions which do not tally with the earlier works like the Agni-purāṇa, are the original workings of the S. S. I shall say more on all this in the concluding chapter of this study.

Aparājita-pracchā.

Aparājita-pracchā is another manual on the science of architecture which may be regarded as one of the most representative texts of Indian architecture, sculpture and painting, fully representing the wide scope of Vāstuśāstra. Its dessertations on practically all the branches of Vāstuśāstra are not only copious and full but also unique in some respects as they add to our knowledge on many new topics like Prosody, Astrology and Music etc. intimately connected with the broader scope of Indian architecture and the fundamental elements of Art, where rythm (Prosody and Music) and mystic ideas of Hindus (Astrology) are fullest of significance and perfectest of implication. The title is significant. It literally means the questionnair framed by Aparājita, the youngest of the four mānasa sons (the other 3 being Jaya, Vijaya and Siddhārtha) of Viśvakarmā. And where there is a questionnair there must be a reply. Questions and their answers formed the traditional exposition of the śāstras in Indian lore and learning. The questions are worthy of a great son and the answers coming from the mouth of the greatest of the architects, Viśvakarmā, himself must be simply sublime and superb in their fullest of connotation and denotation. This is the significance of the first title. This work is also known as Sūtra-santāna-guṇa-kīrti-prakāśa' or succinctly as Sūtrasantāna. At the end of every chapter or Sūtra is an epilogue—'इति सूत्रसन्तानगुणकीर्तिप्रकाशश्रीभुवनदेवाचार्योक्तापराजितपृच्छायां' which supports this second title of this book and incidently hints at the founder of the śāstra, Sri Bhuvanadevācārya, who appears to be none else than Viśvakarmā. Sri P. A. Mankad, who has laboured hard to edit this text and write out an interesting introduction, however, attempts not a happy interpretation of this phrase—'Sūtrasantāna-guṇa-kīrtiprakāśa'. He says, 'The very nature of composition of 'अपराजितपृच्छा' goes to show that the गुण (characteristics) and कीर्ति (functions) of the सन्तान (progeny) of सूत्र (lay out of structures by means of a string or in clear terms, a variety of structural arrangements having different essential features and functions) necessarily

imply that the matter contained in the work has been so compressed that it forms "succinct and scrappy indications" (and not clear and trustworthy definitions) of structures of innumerable kinds.'

In my interpretation Sūtra here means string, the first pre-requisite in any architectural planning and construction and by its constant application (continuity) in each and every architectural function, an architect must invariably get name (for craftsmanship) and fame and therefore the title under this heading is also very significant—'सूत्राणां सन्तानेन यो गुणो यश्च कीर्तिप्रकाशः (लभ्येते) तौ स्तो यस्मिन् ग्रन्थे सः अथवा सूत्राणां यः सन्तानः (विस्तारः) यश्च गुणस्ताभ्यां यः कीर्तिप्रकाशः सोऽस्ति यस्मिन् ग्रन्थे सः'. Hence its interpretation implying, 'succinct and scrappy indications' in the opinion of Sri Mankad does not hold good. The case is quite otherwise. The treatment of every topic is more elaborate than required as chapterwise notice (which follows soon) will convince us

Now as regards its age, it may be said that unlike Viśvakarmā's works–Vāstuśāstra or Śilpaśastra, it is a datable treatise It is definitely post-Samarāṅgaṇa as many of its verses may be regarded as verbatim reproductions from the S. S., as majority of verses in Sūtradhāra-maṇḍana's works are verbatim reproductions from the Aparājita-pracchā. Śilparatna also falls in this category which has copiously borrowed from the Mayamatam. A perusal of the Vāstulakṣaṇas appended with this work will support this conclusion. The name of the treatise and its author are a bit mystical and punny in the sense that Aparājita may also stand for some ruling Indian chief on whose behest this treatise was compiled and Bhuvanadevāchārya, the great Viśvakarman, may also signify the author of that name. Let us take up the former point. Four kings with the names of Aparājita appear to have flourished between 661 and 1161 A. D in different parts of India. They were, the Guhila king Aparājita (vide Epi. Indica IV. 29); Aparājita as one of the contemporaries of Rājaśekhara (cir A. D. 900), who mentions him as the author of a story called Mṛgāṅkalekhā (cf. Kāvyamālā of 1900 p. 9); Aparājita, the Silahara king of Northern India (Epi Indi. Vol. III. 267)—vide the copper plate of 997 A. D. and Aparājita (whose another name is Devapāla) as the son of Mūladeva of 1161 (vide Indian Antiquary Vol. XV p. 202). Thus it seems probable that this treatise might have been compiled at the behest of some one of these four kings. This is an external evidence. Now if we take the internal evidence into our consideration the upper limit of Aparājita can be dated after 200 A. D. as the author quotes Bharata, the celebrated writer of Nāṭyaśāstra vide Sutra 34 v. 14) and scholars have fixed Bharata's date as 200 A. D. We know

Bharata describes only eight Rasas while this work, as is usual with other later works, describes nine. This work is also post-Kalidasa as it imitates the renowned poet—vide Sutra 38 v. 19, in the style of his famous poem Kumārasambhava—पूर्वांपरौ तोयनिधी etc. Thus its upper limit comes down to the 6th century A. D. Further again there are copious quotations and reproductions from the later Purāṇas like Skanda, Vāyu, Śrīmadbhāgavatam and Viṣṇu etc. etc. Still further the author has reproduced verses composed by Śaṅkarācārya on Gaṅgā and Śiva—vide Sutras 1. v. 12 and 204 cf. 'Pañcavaktra-dhyānam' respectively. Thus the upper limit comes down to the 9th Century A. D.

A critical comparison with the Samarāṅgaṇa-Sūtradhāra (to be attempted soon) may convince us that the book in purview is definitely post-Samarāṅgaṇa. And the date of the author of the Samarāṅgaṇa, king Bhojadeva of Dhārā is practically settled—11th century A.D. Thus the Aparājita-pracchā may safely be placed in 12th century A. D. and may be associated with the fourth king Aparājita; the son of Mūladeva (1161 A. D.)

P. A. Mankad has attempted a comparative estimate of both these treatises, the S. S. and the A. P. He has come to the same conclusion that the S. S. is decidedly anterior in its compilation to the A. P. A pertinent point in support of this estimation is that while Jainism and Jain deities are completely ignored in the S.S., A. P. shows equal adoration to the Jain deities and to the foundation and dedication of these deities in temples and construction of their images. The S. S. on the other hand envinces a rather unpleasant tendency towards Jainism and Buddhism as is apparent from his appellation for these sects ('पाखण्डिन्'). In the S. S. their divinities have not obtained an honourable seat in the various types of temples dealt with. P. A. Mankad, accordingly observes: 'It is evident the preachings of Saṅkarācārya had secured a firm foothold in the country and though Jainism was trying its level best to achieve ascendency in the State, it had not succeeded in its object upto to latter half of the 11th century in Dhārā, Mālavā etc. It was in the time of Kumārapāla Solanki (1143-1174 A.D.) that Jain preachers secured their objective and one finds that the A P. depicts a picture of this sect in a far more tolerant spirit as a result of a pious attitude towards Jainism; its divinities are found raised to a level as high as, though not higher than the Trimūrti of the Hindu Pantheon. In the temples of different types they have come to occupy a position as exalted as Brahmā, Viṣṇu, Maheśa, Sūrya etc; they were admitted in temples of superior

types and are assigned seats along with Brahmā, Viṣṇu, etc. The Vesara style of Architecture had completely lost its ground when the S. S. came to be composed. Even its academic significance was ignored as it were, by Bhojadeva. The A. P. on the other hand has not discarded the past history of Architecture as revealed in works gone before. It has enumerated in detail the several constituent features of different styles. It has shown in this comparative classification that Vesara had an individuality of its own upto a certain stage in the history of Architecture, and it was about, say between the 8th and 11th centuries that it merged into the other styles with the result that new styles or sub-styles came into existence. Bommaji, a Dravidian architect, who flourished in the 9th century A. D. had acquired a mastery in four, instead of three main divisions of Architecture.

The S. S. has got a classification wherein Vesara has, it is evident, split itself into different new styles not known before. The A. P. on the contrary has maintained the traditional knowledge of the Vāstu-śāstra and enriched the S. S. by an intense study of comparative essentials of styles. King Bhojadeva of Dhārānagarī had not analysed his subject by comparisons so valuably attempted by the A. P. It may, however, be emphasized that the author of the S. S. has tried to describe very vividly and in detail the details of Prāsādas in their general plan as well as in their elevation. Nighaṇṭu of Vāstupada-devatās is laid down by him alone; neither the Mayamatam nor the Śilparatnam has touched this question of Nighaṇṭu at all. A close study of the S. S. and the A. P. with respect to the subject matter in its manifold aspects leads me to conclude that the S. S. is decidedly anterior in its composition to the A. P. which may safely be taken to the 12th century A. D.'

With this general introduction to the work let us tabulate its contents in a very brief summary to bring home to the readers its unique place among the Śilpa-treatises conveniently to be styled as an Encyclopaedia of Mythology, Philosophy and Science of the arts of architecture, sculpture and painting along with a peep into ancient Indian engineering and overseering.

Subject-matter. Origin of the Śāstra and its scope—Here a graphic description of the mountain Gandhamādana follows where 81 ṛṣis were practising penances and it was at this pious place that god Viśvakarmā had founded his hermitage. Aparājita, his fourth mānasa son, after offering his salutation to his father begs of his permission for

the questionnair related to the Sūtraśāstra (I). Thus obtained the mandate, the worthy son Aparājita faces his father with a volley of questions intimately related to the lore of an architect, the Sūtradhāra akin to the Jaya-pracchā in the S. S. a detailed notice of which has already been taken in the preceeding pages. Thus in this 2nd Sūtra (chap.) a very broad scope of the science—vide Vāstulakṣaṇa—has been hinted at.

N. B.—Now is the turn of Viśvakarmā to take all these querries one by one in which all the knowable subjects were put up by the great seeker. These relate to the creation in general as well human and divine, indirectly related to human-planning and also to all those subjects which directly fall in the domain of an architect. Aparājita does not sit idle, he puts so many inter-questions in the middle of the discourse. It is in this way that the complete Vāstuśastra is evolved in the following pages.

Creation. Brahmāṇda (3): A. Pātālalokas: Tala-vitala-sutalas; B. Martyalokas: Jambū-plakṣa-kuśa-krauñca-śālmali-śaka-puṣkaras 7 Dvīpas; kṣāra-kṣīra-dadhi-sarpi-madhu-ikṣu-udakas, 7 oceans; Meru-mandara-gandhamādana-himavad-himakūṭa-niṣadha-nīla-śveta-śṛṅga-vats, 9 kulācalas; mahendra-malaya-sahya-vindhya-hemanta-pārijāta-śrīśaila-arbuda-udayādri-trikūṭa-devīpaśaila-vindhyācala-maināka bhūpariṣa-kankata-prāntakodbhavas 16 (or only 15 as vindhya seems to be repeated) Kulaśaila-vanāni (Forests attached to Kula-mountains) (4); C. Svargalokas: Seven uppermost lokas—bhuva—svar-mahas-jana-tapas-satya-jñānas as abodes of gods—also seven-fold Mālikās—Kāñ-canasabhā-sphaṭikanirmalā-indranīlā-vaidūryā-padmarāgā-vajrakā-sarvaratnāḍhyās—above which resides Brahma-Tejas, The Primordial Prakṛti, whose qualities being Sattva, Rajas, Tamas and their Powers (5); Rise of the eightfold Powers:—Ditī, Asurī, Gandharvī, Yakṣī, Vidyādhari, Narendrī, Nāgarājendrī, and Aditi and the rise of creation from these Powers (6).

Now is taken up the creation of the world, under the title 'Sṛṣṭisaṁsārāvataraṇam' and herein is introduced Kāśyapa and his Five Daughters from whom sevenfold Netherland-regional kingdoms, their people and respective kings, sevenfold continents their countries, people and kings etc etc. have been elaborated. Incidently the abodes of Gandharvas, Vidyādharas, Yakṣas etc. the denizens of heaven have also been hinted at. Then follows the description of sevenfold lokas and above all the great Meru where Mahādeva resides and from there (and from whom) the whole creation springs (7-9).

Further next is taken up this mortal world with its Bhutagrāmas in which the Āgamic accounts inter-mingled with Tāntric philosophy based on Śāmbhavadarśana are very much elaborated to give an impression that the author of the Aparājita is follower of both the Āgamas and Purāṇas alike. This is one unique feature of this text and is quite in keeping with the genius and the spirit of the times when this work was compiled. It was great epoch of Indian unity and brotherhood culminating in all India composite culture where petty sectarian dessensions and differences had lost their ignoble value and a more tolerant and catholic out-look was being cultivated to f ce the alien upsurge which was destroying the very roots of the culture and the art of the land. We are familiar with the tenets of Śāmbhava-philosophy where the supremacy of the Lord Śiva and the Universal Energy, the Devī, the Sakti is equally adorable and it is from their conjugated Principles that this Universe is taken to have been evolved. All these accounts of creations, accordingly, of this text, are coloured on every page and in every line with this fundamental background of Metaphysics and Mythology. Hence these borrowings from Āgamas and Tantras on the one one hand and Purāṇas like Skanda and Śiva (Vidyeśvarasamhitā) etc. on the other can be understood and appreciated.

The question is: What is the significance of these mythologies and philosophies in a text on Vāstu, architecture, sculpture and the fine arts of Painting etc. Here broad Hindu view of the art and still broader and loftier principle of planning, which is the elder sister of creation, as per the following doctrine of the S. S.: "वास्तु ब्रह्मा ससर्जादौ विश्वमप्यखिलं तथा"—i. e. Brahma, before creating this world, first created Vāstu the essence of which is planning, come to our rescue. Naturally in any human planning—be it a town or a residential house, not only its surrounding regions or environments are worthy of consideration but also the country at large, the whole world at larger and the planets (under whose sway this vast world of ours works) at the largest, are to be taken into consideration and this brings us to the domain of the whole creation. Human life is not isolated. It is guided by the stars who reside in different planets. Hence the knowledge of the different planets and the lokas is a great requirement of the planner who is nobody else than the architect of the land. Viśvakarmā is our national architect. His sons are the prototypes of the architect-guilds. This is the sum and substance of these elaborations in a technical work—wrongly discarded as non-architectural matters.

Accordingly in the text—vide Sūtra 11-21 all these planets and their systems have been described. It is they who have evolved the

time and its various ramifications into tithis, kalās, black and white fortnights, months, seasons, years, yugas, manvantaras and lastly the kalpas etc. etc. At the end of the Kalpa, gods get absorbed in themselves or in the Five liṅgas or in the spirits of all the Bhūtas. Naturally even in kalpānta, Five liṅgas exist as they are eternal and it is from them that Creation again follows :

लीयन्ते सर्वदेवाश्च कल्पान्ते लिङ्गमध्यगाः ।
कल्पान्ततोऽव्ययं लिङ्गं ··· ··· ··· ··· ··· ··· ॥
द्वीपे द्वीपे पुनस्त्वेवं ··· ··· ··· ··· ··· ··· ··· ।
तेभ्यो जाता पुनस्सृष्टिर्जगत्स्थावरजङ्गमम् ॥

Accordingly in the Sutra no. 22 this whole creation as rising from the Five Eternal Liṅgas has been described. Then from 23rd to 29th all the Ten Incarnations of Viśnu have been taken up meaning thereby the Evolution of the world. Creation itself is not sufficient unless it gets evolved into different chanels of life and matter. These Incarnations therefore, may be regarded as open books of Evolution

With this very meaningful introduction of the creation and evolution etc. now Aparājita, the great seeker asks the Lord Viṣṇu (who had come to the Mountain Gandhamādana on his own accord) that he had learnt the secrets of His Incarnations alright but how and when was Tvaṣṭṛ born ? At this Viṣṇu replied—vide 30th Sūtra and his expatiations intermingled with the middle querries related to the advent of Viśvakarmā with his four mānasa sons on the stage (31-32); and here then comes up the regular subject matter of the planning of the earth, the Vastu, which planned out becomes Vāstu. This subject-matter may be conveniently sub-divided into the following heads :

I. Scope of the Śāstra:

Mission of Planning and its Trinity—Earth the substratum, king Pṛthu, the patron-lord and the planner-architect Viśvakarmā (cf. the S. S, I)—vide 33rd Sūtra. Then is expounded the domain of the Pianner in the respective querries of all the four sons, Jaya, Vijaya, Siddhārtha and Aparājita—vide Sūtra 34th.

Earth, Netherland, Continents, Oceans, Lokas, Mountains etc.—their dimensions, locations, characteristics of peoples and countries etc. etc. (35-36).

N. B.—The opening verse of the 35th chapter gives you a clear idea of the aerial survey of the world by Viśvakarmā :

पुष्पकं तु समारुह्य मेरुमाश्रित्य दक्षिणम् ।
विलोकिता भूतधात्री समुद्रान्ता च मेदिनी ॥

—which is the most modern device of surveying the land and landscape for foundation of a big metropolis or large industrial town. Our ancient masters must have some unique devices of measurements as the minutest of details of the dimensions etc. of the earth with its mountains, oceans, and countries could not have been forthcoming.

Thus surveying Viśvakarmā saw as many as nine Khaṇḍas of the earth (37) and as the treatise is directly concerned with the sacred land of ours the following chapter (38) describes in detail the Bhāratavarṣa, its area, settlements (villages etc.) kingdoms and kings. Next follow the mahāvanas, upavanas and the kānanas (the differences being: Mahāvanas the great forests are the Mountain-beds; the Upavanas small forerts, just in the vicinity of the habitations of men and Kānanas man-made gardens).

II. Preliminaries to actual operations—going to the forest for wood. This gives you to attack an architectural mission—Dāruāharaṇa—visit to the forests for bringing wood worthy of use in the house-construction (39). The 40th chapter incidently takes up the topic of the collection of stone for the sculptural purposes liṅga-icons etc.

III. Code of Measurements: The 41st Sūtra deal with this code.

IV. Sūtras 42-47 relate to the astronomical-astrological and mathematical problems.

V. Examination of the soil and selection of the site and other accessory rites and operations like Vāstupūjā and ācāryapūjā etc. (48).

N. B.—Incidently here in the 49tn and the 50th Sūtras the selection of an architect and his qualification are taken up.

Next follow Bhūparigraha i. e. digging the whole and ascertaining its suitability or otherwise and the Plavavicāra i.e. declivity or proclivity (extension to a particular direction) of the plot along with the vegetation in the environment—the trees etc. (particular trees being deemed as auspicious) and testing of the different soils in respect of their colour, taste and smell etc. All these tests undertaken the Kīlākāropaṇa and Kūrmapratiṣṭha are delineated upon (51-52).

VI. Site-planning (53-62)

N.B.—These chapters have been noticed in the body of the work —vide Town-Planning ahead and hence no repetition here.

VII. Determining of the auspicious dates etc. Āyādivicāra, (63-66) the topic reserved for the subsequent Chapter of this part,

As these portions of the text fall in the domain of sculpture (iconograpy) and painting and as they have been noticed in the writer's Vāstuśāstra Vol. II—Hindu Canons of Iconography and Painting, they are not elaborated here and the readers may see them in the book referred to.

After we have noticed these principal texts of Northern school of Architecture, let us take up the Southern texts. Mānasāra, Mayamata and Śilparatna have been chosen by me as three representative manuals on Dravidian architecture. Let us begin with Mānasāra.

Mānasāra. It is the most popular and very widely talked of text among these. It has not only been ressurrected from unintelligible barbarous sanskrit but it has simply been immortalised by the pen of the celebrated scholar of the Mānasāra, Dr. P. K. Acharya, whose monumental series on this work—the edition, the summary, the translation, the Dictionary i.e. Encyclopaedia etc. have opened a new vista of vision in India's past. Zealous work of an enthusiastic and partisan scholar must evoke either great applaud or bitter attack. Dr. Acharya has been recepient of both the awards. Dr. Acharya, the father of modern canoncial architectural studies in India, in his great enthusiasm for the Mānasāra, has made certain pronouncements regarding its character, date and other allied matters that are now open to critisism and bitter attacks. For example the learned doctor's conclusions that all the texts architectural like Mayamata, Viśvakarma's works, Agastya's work and non-architectural like Matsya-Purāṇa, Bṛhatsaṁhitā and Āgamas like Kāmika etc. have all drawn from the Mānasāra and therefore the Mānasāra is the fountain head of all the architectural lore which has flown into the different channels as is seen in other available texts dealing with architecture proper or expatiating on it indirectly. Thus the Mānasāra is the only standard work on Architecture; secondly his taking this manual as an early text earlier than even Bṛhat-aṁhitā and the Matsyapurāṇa and placing it in the Gupta period—these are the two principal assertions made by the learned doctor which have been very much discussed in the contemporary writings by scholars like Bhattacharya and Mallaya. The present writer being primarily a student of the Sāstra which is an unbroken culture of the past, does not want to enter into any lengthy controversy which is not very important from the standpoint of the study of the canons of architecture. Indian culture, being a very very old culture, is not at all affected if a text is some centuries earlier or later. After making a study of the sculptural portion of this renowned text, I have come to some conclusions of my own and the reader is referred to them—vide

my 'Vāstuśāstra Vol. II—Hindu Canons of Iconography and Painting, Pt. I. p. 58. Here I have to say something on its architectural portion which have a direct bearing on the subject-matter of the volume.

Dr. Bhattacharya is very critical of Dr. Acharya's assertion that the Mānasāra is an early work and may be safely placed in Gupta period. His attack mainly centres round the description of many-storyed Gopuras (from one to sixteen or seventeen storeys)which belie the actual practice of the age in which it is said to have been written. Early Gopuras could never extend their superstructures to more than five or six storeys. These excessive storeyed structures are later medieval exuberance. A perusal of the text (Chap. XXXIII Gopuravidhāna) however must moderate Dr. Bhattacharya. The text describes the details of Gopuras built in five or six storeys and it only suggests that the fifteen kinds of Gopuras or gatehouses may have one to sixteen or seventeen storeys. This is only a normative principle of architecture and has nothing to do with a positive practical application of the day. Vāstuśāstra or Śilpaśāstra is both a science and an art. It is normative scienc in the first place because it is a śāstra. Accordingly if it suggests that particular structure can be built in such a varied and excessive super-structure, it does not mean that that may also be epitomizing the buildings of the day. This is the fundamental point which Dr. Bhattacharya has missed. I am, therefore, inclined to think that the Mānasāra is not so late a work as may be placed in the later medieval period as Dr. Bhattacharya contends. The Mānasāra sculpture really represents an early phase of art. I have made a comparative estimation of the four renowned texts on sculpture belonging so the southern school of Architecture in the second volume of these studies and it is worth reproducing here: 'Mayamata, Mānasāra, Aṁśumadbheda and Śilparatna, all these four texts of the Drāviḍa Vāstu-vidyā epitomise the four stages of development of the art. In its infancy the art was symbolic, the worship, for which the service of the art was employed, too was symbolic. Naturally therefore the worship of the phallic emblem and the manufacturing of the liṅga and its pedestals were the initial stage of development. This is what Mayamata portrays. Now apart from the liṅga-pūjā and liṅg-icons, the worship of other deities, particularly the Triad, Brahmā, Viṣṇu and Maheśa and the icons of this famous Trinity, along with their vehicles Haṁsa, Garuḍa, and Vṛṣabha, were in vogue. This was the second stage of development, as is manifest in the pages of the Mānasāra. The third stage was a bit fanatic and its adherance only to a particular god, viz. Śiva became an estab-

lished canon, both in art and religion. This is what we understand by the perusal of Agastya's or Kāśyapa's works. This anti-thesis brought a synthesis as a natural course, as is evident from Śilparatna, a work of broad catholicity and tolerance, depicting the universal reverence not to one-class but to all the classes of deities and their icons'. Moreover the treatment of the Buddhist images and Jain images too may be taken the early phase of Buddhist iconography. There is no reference to Vajrayāna deities—a rich development of the later medieval period—nor to miscellaneous Jain-Devatās in the Mānasāra treatment of Baudha and Jain lakṣaṇas.

This is one point which may help us in rehabilitating the early character of the text. Another point helpful in the reconsideration of its proper historical place is its implied association with 'Māna' which name stands in the Ṛgveda for Agastya and Agastya has been referred to as a very early Ācharya of Śilpaśāstra and the Mānasāra text refers to a good many artists or treatises of art going after the name of Māna—with the prefix of Māna, Māna-Bodha, Māna-Vid etc. It, therefore, may be surmised that the present work is in the line of the very early śāstra as associated with Agastya and his desciples. Mānasāra may be regarded as one such desciple. In the context of Southern culture—colonisation or Aryanisation, expansion of Aryan supremacy or the like Agastya's contributions are well known and as the treatise is the most representative manual on the South Indian architecture, its indebtedness to Agastya's work may be taken for granted. Another more important point to which the attention of the scholars may be drawn is the detailed treatment of Vimāna-architecture and its accessory Gopura-architecture with complete absence of Prāsāda architecture and its accessory Jagatī and Pratollī archi ecture, a characteristic of North Indian texts like the Purāṇas, the Matsya and Agni, Bṛhatsamhitā and the Śilpa texts like the Samarāṅgaṇa and the Aparājita. This Vimāna architecture in the opinion of the present writer is the precursor of Prāsāda-architecture, a detailed exposition of this thesis is to follow ahead—vide Pt. V. Temple Architecture—on the authority of the S. S. itself cf. the following statement:

विमानमथ वक्ष्यामः प्रासादं शम्भुवल्लभम् ।
स्वर्गपातालमर्त्यानां त्रयाणामपि भूषणम् ॥
सर्वेषां गृहवास्तूनां प्रासादानां च सर्वतः ।
प्रासादो मूलभूतोऽयं तथा च परिकर्मणाम् ॥ स० सू० ५६·१-२

If the Mānasāra were a late work like Śilparatna it must have not completely ignored the Prāsādas which have found a glorious treatment in the Purāṇas and other North Indian texts on Architecture.

Its expatiation on the Vimānas and Harmyas alone are to be taken not only a South Indian character, but it also hints at a very flourishing architecture of the by gone ages, the Asura architecture, references to which abound in practically all the early literature, both Vedic and Epic. Hence to damn the learned doctor for placing it in Gupta period is uncalled for. To me the Mānasāra represents a very early art-tradition which may go back as early as pre-Christian. Its compilation or standarization might belong to golden Guptas or flourishing Cholas and Pandyas (for its eulogy to Vaiṣṇavism). This is only a broad indication of its character and antiquity and the present writer does not want to enter into any lengthy controversy about it. Others may take this study and finalise it which is not difficult of solution.

New let us take another assertion of Dr. Acharya that the Mānasāra is the only standard work and other Śilpas have simply drawn from it. This is really very bold assertion and as I have remarked that it makes the learned doctor very partisan. Very important subject-matters of architecture are completely absent in the Mānasāra. The Mānasāra represents an aristocratic architecture. Its detailed delineations on Indian royalties and royal palaces supports this contention. Its Buildings (cf. 98 types from one to 12 storeys) are really gorgeous mansions. They, at the most, can be taken as Southern Vimānas. Vimānas and Harmyas have been long associated with palaces of kings. Vālmīki has a glowing descriptions of these in the context of the capital cities of India like Ayodhyā or Laṅkā. Naturally therefore as already contended, there is a complete absence of Prāsāda architecture. Even the Śālas of the Mānasāra are palaces for all practical purposes. Śālās, as our tradition depicts, are residential houses for the common mass of humanity or the middle class people. This subject would be discussed in detail ahead—Vide Pt. III House architecture. Thus the civil architecture or the popular architecture with especial reference to buildings is not to be found in this text. The S. S. and the A. P. have got a credit to rehabilitate the civil architecture of India and a detailed discussion of this topic will follow (ibid.)

Secondly Mānasāra's treatment of Śilpa-śāstra or Vāstuśāstra is delimited to architecture and sculpture alone. Its sculptural topics also are very limited—the different classes of images in relation of Vaiṣṇava, Śaiva, Gāṇapatya, Saura, Śākta etc. ete. are not to be found here as we see in the texts like Kāśyapa-śilpa or Agastyas's Sakalādhikāra. According to writer's thesis, the principal subject-matters of Indian Vāstuśāstra are: Town-planning, Secular architecture (Śālas and Rājaharmyas), Religious architecture (Temple archi-

tecture), Sculpture (Iconography) and Painting. Mānasāra deals with only three out of these five (popular architecture and pictorial canons are absent). Dr. Acharya's attempts to compare 98 types of Mānasāra mansions with the temples as described in the Agnipurāṇa, the Garuḍa-Purāṇa, the Matsya-Purāṇa, the Bhaviṣya-Purāṇa, the Bṛhatsaṁhitā, the Kāmikāgama and the Suprabhedāgama (cf. Hindu architecture India and abroad Chap. V. pp. 186-208) and his coming to the conclusion : " it seems to me impossible to resists the following conclusion. There appears to have been a relation of indebtedness between the Mānasāra and the other works both architectural and non-architectural (i. e. the above mentioned works—writer)"—both are open to objection and Dr. Bhattacharya (vide his book 'A study of Vāstu-vidyā or Canons of Indian architecture') has ably shown it and has proved that these buildings as described in the above texts do not at all tally with those depicted in the Mānasāra (cf. Ch. XII pp. 148-191). The Mānasāra really, as I have already remarked, represents a remarkably quite a new tradition Its unique character is the standardization of the Measurements and is therefore very faithful to this side of architectural technique Mānasāra may be a ṛṣi or a treatise by the name, but surely its essence is 'Māna' the measurement. Moreover, its leaning to aristocratic architecture gives us to surmize that the compilor must be a royal architect and therefore his leaning to the Temporal authority rather than to the Spiritual one is more pronounced. This is only a brief indication. There are so many other equally important topics of popular interest which too have not found a place in the treatment of the text and so to regard it as the fountain head of all architectural lore is simply prepostrous. A critical and comparative look at the contents of these representative texts itself will convince the reader of the soundness of this judgement.

Now taking leave of the controversy let us now concentrate on its contents in a very brief notice (the detailed treatment may be seen in Dr. Acharya's works).

There are seventy chapters in Mānasāra of with first fifty deal with architecture and the last twenty with sculpture.

Preliminaries. The first chapter entitled Saṅgraha deals in the first place with the origin of Vāstuśāstra (from Śiva, Brahmā and Viṣṇu, through Indra, Bṛhaspati, Nārada and all others sages, to the seer Mānasāra who systematized it) and secondly with the scope (the Saṅgraha) of the science—vide Vāstulakṣaṇa.

The second chapter 'Mānopakaraṇa-vidhāna' takes up the system of Measurement, a detailed notice of which is taken in the next

chapter and also vide Vāstulakṣaṇa. Incidently the first part of this chapter traces a geneology of the artists. "From the four faces of Brahmā, the Creator of the Universe, originated, in order, the heavenly Viśvakarman, Maya, Tvaṣṭṛ and Manu. Their four sons are called respectively Sthapati, Sūtragrāhin, Vardhaki and Takṣaka. These four evidently represent the progenitors of the four classes of terristrial artists. The Sthapati is highest in rank; he is the master-builder. The Sūtragrāhin is the guru of Vardhaki and Takṣaka; while the Vardhaki is instructor of the Takṣaka". As regards their qualifications and other equipments, enough has been said in one of the last chapters.

With this introduction to the subject-matter, the origin and scope of architecture and the grades of the architect, the next six chapters are devoted to the preliminary matters like the selection of site, testing of soil, planning, designing, dialling, finding out cardinal points, and astronomical and astrological calculations. Accordingly in the former part of the third chapter Vāstu (dwelling or habitation, construction or any creation) is defined—vide Vastu-Laks.; and in the latter one so also in 4th and 5th chapters it deals with examination of soils (Bhūparīkṣā) and selection of site (Bhūmi-saṅgraha), the topics fully discussed else where. The sixth chapter—Śaṅku-sthāpana-vidhāna—deals with dialling and finding out the cardinal point by means of a gnomon. Śankusthāpana is an ancient device to find out the orientation of the buildings and as regards the principles of dialling, each of the 12 months is divided into 3 parts 10 days each and the increase and decrease of shadow are calculated for these several parts of the different months. The object of the seventh chapter 'Pada-vinyāsa' is to lay down rules for the site-plans. When a site is selected for laying out a village, town or building (residential or devotional) there on the ground it is devided into differents numbers of squares—the padas. The Mānasāra recognises thirty two kinds of such site-plans and they are distinguished by as many different designations, according to the number of squares into which the whole area is partitioned out. The whole scheme has been arranged in such a manner that in each case the number of partitions represent the square of the serial number. The details are to follow in the subsequent chapter. The last of the preliminary chapters, the eighth 'Balikarma-vidhāna', is an ancient practise of offering bali to the deities of the site. Different kinds of offerings are described to various deities.

Town-planning : Now follows architecture proper. Ninth and tenth chapters are devoted to the canons of village-planning, town-planning and the planning of forts.

According to the Mānasāra, there is not much difference between a village, a town, and a fort All are fortified places intended for the residence of people. A town is the extension of a village. A fort is in many cases nothing more than a fortified town, with this difference, that fort is principally meant for purposes of defence, while a village or a town is mainly intended for habitation. The details are not to be repeated here. They are to be used in the following part—Town-Planning. The only remark in connection with the folk-planning (Jāti-varṇādhivāsa in the terminalogy of the S. S.) is the partiality of this text for Brāhmaṇas and the architects. The best quarters are generally reserved for them. Such partiality, in the opinion of Dr. Acharya to the artists is not met elsewhere in Sanskrit literature.

Buildings in general: the storeyed mansions. The XI chapter on 'Bhūmilamba-vidhāna' literally meaning the height of the storey, really deals with the measurement of length, breadht, and height of buildings of one to twelve storeys. The various shapes of buildings, their classifications along with their respective dimensions have been dwelt at greater length. The next chapter is on the foundation in great details and incidently in the end it expatiates, on the bricks and the ceremonies connected with Prathameṣṭikā, the laying of the foundation stone etc.

The next five chapters are on Pedestals, the Upa-pīṭha, pillar, the Stambha, Entablature, the Prastara and Joinery the Sandhikarma, respectively and their details may not be followed here. The XVIII chapter 'Vimāna-vidhāna' is devoted the general description of buildings. The contents of the chapter are divided into the following headings: the classification of the Vimānas of one to twelve storeys; the three styles of architecture; the characteristic features of the stūpika or pinnacle, the stūpi-kīla or pinnacle staff, the lūpā or looping roof, and the mukhabhadra or front portico; and the ceremonies of fixing the pinnacle staff. The XIX deals with 'Eka-būmi-vidhāna—one storeyed buildings and the following ones XX-XXX are exclusively devoted to buildings of two to twelve storeys, a critical notice of which will follow in the subsequent parts — House-architecture and Temple-architecture.

Buildings in Particular. The XXXI chapter deals with the courts Prākāra-vidhāna. Fivefold prākāras are announced in connection with bali (offerings), parivāra (attendant deities), śobhā (beauty) and rakṣā (defence). Dr. Acharya however remarks (H. A. I. A. p. 166); 'But the main object of the chapter is evidently to describe the various

courts into which the whole compound is divided. The description of five such courts is given. The first or innermost court is called antar-maṇḍala. The second is known as antar-hārā, and the third as madhya-hārā. The fourth court is technically named as Prākāra. The fifth and last one is known as Mahāmaryādā or the extreme boundary. As the title of the chapter indicates, the greater part of it describes only the fourth court. Here it may be briefly observed that this prākāra is also divided into the jāti, chanda, vikalpa, ābhāsa and kāmya classes. Under each class a number of buildings (śālā) is exhaustively described'. This observation of the learned doctor supports my contention that these 98 types of buildings are really gorgeous structural palaces rather than temples proper. Palaces of old had many prākāras or courts. It was a stereo-typed canon of Palace-architecture in India. These courts had edifices of imposing grandeur which comprise both attached and detached buildings along with compartments, halls and chambers etc. etc. Further more this chapter itself concludes with the shrines of attendant deities (parivāra-vidhāna) and the gate-houses, the gopuras are treated in detail in the next two chapters and thus this fact also is a step forward in my previous thesis. In a palace-planning, the place of a royal chapel was also reserved and the gopuras were not only an architectural beauty but also the entrance-door to the royal deity. As already remarked chapters XXXII and XXXIII are devoted to Parivāra and Gopura, the details of the latter being reserved for its proper place—vide Temple-architecture. Similarly the next two chapters Maṇḍapa-vidhāna and Sālā-vidhāna XXXIV-XXXV will also be noticed in their proper places Śālās in the Mānasāra, as already brought out, are storeyed mansions.

House-architecture. Some four chapters (XXXVI-IX) are a brief exposition of residential houses, their dimensions and lay-outs along with the component parts etc. Accordingly the Gṛha-māna-sthāna-vinyāsa, the XXXVI gives us the arrangement and situation of the different apartments of the house. 'The Brahma-sthāna, or the central square, is stated to be unfit for a residential building. The temple of the family god is generally built in this part. Round this are constructed the dwelling-houses for the master of the family, his wife and children and servants, sheds for cows, horses, poultry, etc, the kitchen and dining hall, etc., rooms for guests, for reading or study, for the daily sacrifices of the upper caste people, for amusements and music, for the dancing girls, and for all other domestic purposes. The arrangement of these different structures is, however, slightly

different according to the caste and social position of the family. But the general plan of the dwelling-houses for a family is the same in all cases'. The next chapter 'Gṛhapraveśa-vidhāna', the XXXVII is ceremonial in character and is a usual practice differing only in minor details in different manuals. The subsequent two chapters, the XXXVIII-IX are devoted to doors Dvārasthāna and Dvāramāna-vidhāna. Here the principal topics relate to the arrangement, location, measurement, and ornamentation of the doors to be used in all kinds of buildings. Windows are also described. Incidently drains underneath the house are also described. In the end are given the materials (timber) with which the doors are to be constructed. As regards the measurements, the common rule is that the height of a door should be twice its breadth. But various alternative measurements are also given. Then follow the door-parts and in the end are given their ornamentations.

Palace Architecture. It is expounded in some ten chapters both in principal topics of layouts and accessory articles of furniture etc. In 'Rājagṛha-vidhāna' the Royal Palaces, (XL) palaces are divided into nine classes with regard to their size, according as they belong to a king of nine classes enumerated in the next chapter. It may be pointed out here that the Mānasāra's palace-plans are the most standard and a comparative study of the planning of the palace and its allied architecture of the main buildings and the accessories is reserved for the body of the thesis vide Pt. IV. Palace architecture. The next two chapters Rajāṅgalakṣaṇa and Bhūpāla-lakṣaṇa deal with the royal courts, the classification of kings, the qualities which are required in a good ruler and so forth, the matters not very important from archicetural point of view. The subsequent chapters on house-hold (especially in the royal houses) furniture are taken up. 'Rathalakṣaṇa-vidhāna', the XVIII is on cars and chariots. Cars and chariots are constructed for the ceremonial and ordinary use of gods, Brāhmaṇas and kings, as well as for war and other purposes. The wheels and other parts of cars, their shapes, their measurements, their ornamentations and mouldings are described in order. 'Śayana-vidhāna' the couches (XLIV) treats both bālaparyaṅkas and the paryaṅkas proper. Special mention may be made of the swings suspended from four chains in the couches. In the end Āsanas (seats) are also introduced, a special variety, the 'Thrones' 'Siṁhāsana-lakṣaṇa-vidhāna,' is the subject matter of the following chapter (XLV), a detailed notice of which is to be taken in 'Palace architecture'. The next chapter 'Toraṇa-vidhāna' on arches is complementary to thrones. Arches are taken as ornament of the thrones of gods and kings which are supported on

dwarf pillars. The XLVII chapter is on Theatre 'Madhya-raṅga-vidhāna' not a very standard prescription on the subject as we find in Viśvakarmā's Vāstuśāstra. Now the XLVIII chapter 'Kalpa-Vṛkṣa-vidhāna' on 'The Ornamental Trees' is a decorative device in the context of palace-architecture; literally it means a mythical tree granting all wishes or in other words, an all-producing tree. The tree is beautifully decorated with creepers, leaves and flowers of various colours and forms. Jewels and garlands of pearls are inserted in suitable places. The figures of dieties, siddhas, vidyādharas, monkeys etc., are placed in the intervals between the branches. The next 'Abhiṣeka-lakṣaṇa-vidhāna' on Crowns and Coronation is divided into two parts: the first part describes the crowns of gods and kings, and the second deals with the ceremonies of the coronation of kings. The chapter is of sculptural interest and a notice of the various head-dresses used by gods and kings namely Jaṭā, Mauli, Kirīṭa, Karaṇḍa, Mukuṭa etc. (as many as nine such varieties), has already been taken in my book—Vāstuśāstra Vol. II—Hindu Canons of Iconography and Painting—and therefore they may be passed over here. As regards the royal coronation it may not be reproduced here as being of non-architectural interest. Now the last chapter (L) of the architectural portion of this text is on the ornaments of the body and articles of furniture, the former forming a topic of my Iconography-book—vide Vāstuśāstra Vol. II, the latter is reserved for the body of the thesis ahead—vide House-architecture. A notice of sculptural portion is already taken—vide Vol. II.

Thus the whole treatise is a masterpiece of systemic presentation of an advanced Vāstu-work and Dr. Acharya's claim for it as a standard work on architecture in the widest sense of the term, perfectly complete and methodical in all respects, is certainly right.

Mayamatam. As the very title indicates, it is ascribed to the Muni Maya. It is an authoritative and comprehensive treatise on Architecture. Its treatment of sculpture represents the most ancient phase of the art, when phallic emblem was the most popular object of worship and accordingly its iconographical details are limited to liṅga-icons and they are very rich.

We have already discussed something about Maya in the preceeding chapter. Here we are more concerned with the treatise going by his name. Dr. Acharya in his notice of the different Śilpa-texts (H. A. I. & A. pp. 159—185) apart from the Mānasāra, takes up the Mayamata Śilpa-śāstra just after the detailed notice of his text, and says that it should be noticed that in respect of the titles of chapters,

their sequence, except in one instance, contents, and method of treatment, the Mayamata runs exactly like the Mānasāra step by step. It is hardly necessary to point out that in Chapter XXII of the former, the Chapters XXII–XXX of the latter are abridged, to the great relief of readers. So also Chapter XXX of the former is an abridgement of Chapters XXXVIII, XXXIX of the latter. Chapters XLI (royal courts) and XLII (characteristics of kings) of the Mānasāra, which have only an indirect use in an architectural treatise, have been prudently omitted in the Mayamata. Chapters XLV to L of the Mānasāra which deal respectively with thrones, arches, theatres, ornamental trees, crowns, ornaments, and articles of the house furniture, are left out in the Mayamata, apparently as matters of detail. He further says, "It does not, therefore, seem unreasonable to say that in the compilation of the treatise named Mayamata, whether by Gannamācārya, as stated in the colophon (cf MS. no. 13038, Oriental Manuscripts Library, Madras, Catalogue, Volume XXII, page 8763) or by somebody else, the Mānasāra has been largely drawn upon." He further says, "In consideration of the fact that with the Mayamata (MS. no. 13037, fol 213a), the Mānasāra (1a) has became mixed, I am further led to believe that the manuscripts of the Mayamata in the Madras Oriental Library seems to be an abridgement of the Mānasāra."

These observations of the learned doctor deserve respect and it is not very easy to present quite a new thesis about this text as has been ventured by some scholars like Bhattacharya about the Mānasāra. But some observations about his conclusions may be made to open a new door for comparative and critical studies of both these texts, rather of all the three texts, the Mānasāra, Mayamata and Śilparatna which I have taken as the most representative and standard works on Hindu architecture belonging to the most flourishing school of South India, what is called Drāviḍa-Vāstu-Vidyā or Maya school of Architecture representing three stages of development, the early, the early medieval, and medieval-cum-modern periods of architectural history.

I consider all these three texts in their historical antiquity. The present Mayamata is certainly later than the Mānasāra. Even a very early treatise, the Mayaśāstra, though fragmentally, mentioned by Dr. P. Bose, refers to the Mānasāra along with Gārgya and Dīpti, Mārīci and Ātreya Tantras. The only difficulty about this historical sequence is the absence of sculptural development in relation to iconographical details which contrary to Mānasāra's expatiations are very limited—confined to the treatment, as already remarked, to

liṅga-icons alone. My surmise therefore is : the further texts may be missing. Otherwise from the standpoint of the language in varied metres, rich vacabulary and much more chaste, flowerish and idiomatic sanskrit in opposition to the so called barbarous sanskrit of the Mānasāra, the Mayamatam is decidedly exterior to the Mānasāra. The avoidance of certain topics as rightly said by Dr. Acharya, is a prudence on the part of the compilor and as regards the omission of sculptural details, they may have been economically avoided in a treatise which is concerned with all sorts of buildings—religious, residential and military and therefore undue space and preference for sculpture was uncalled for.

Secondly Mayamatam also represents that period of Indian history when rise of the Prāsādas along with their elaborate architecture, and their foundation and dedication, along with the installation of images in them, with religious ferver as promulgated by the Purāṇas, was a great upsurge in our land. In the Mānasāra, Prāsādas a characteristic of Hindu architecture as developed in the northern part of this penunsula are significantly altogether absent betokening an earlier antiquity of this text. In the Mayamata, on the other hand, the word 'Prāsāda' has been used as a synonym of Vimāna. A very interesting reference to the denotion of the word in this text (cf. my observation in the chapter belonging to the part on Temple-architecture), corroborates the above statement. It (II. 6-7) enumerates the following buildings as Prāsādas: Sabhā, Śālā, Prapā, Raṅga-maṇḍapa and Mandira which give the characteristics of a South Indian temple as the parts of the whole establishment. Thus the denotation of the Prāsāda is extended here from the temple itself to the various halls and sheds attached to it.

Thirdly take the contention of Dr. Acharya that the Mānasāra and Mayamata are indentical to all intents and purposes. This identity is superfluous. The chapters and topics dealt in them are surely identical, but the details of architecture—the towns and temples, buildings and so many other architectural objects can hardly be said to be identical. This again supports my contention that the Mayamata represents a more developed architectural exposition than the Mānasāra which is also natural from the standpoint of the historical development of the art. In the context of this third observation some remarks may be necessary while we are noticing the contents of the text. Here let me reproduce Dr. Bhattacharya's observation (A.S. V. V. p. 171): 'Then arose the general system of classification of the South Indian temples, according to number of storeys, which (98 in the Mānasāra) again is not the same in the other texts. The names of the

temples differ in different texts, though they might have the same number of storeys. The Śilparatnam classification agrees with that of the Mayamatam, which two again differ from that found in the Mānasāra (See Table I D). The Mānasāra, therefore, appears to have been unknown to the Mayamatam; and Acharya's contention that the Mayamatam was indebted to the Mānasāra, therefore, cannot be accepted. Either the Mayamatam was following a different tradition or the Mānasāra was a much later work. This later date of the Mānasāra (which will be discussed in detail below) is further suspected from the fact that whereas the Mayamatam definitely says that the number of storeys in the Gopurams could be only upto seven, the Mānasāra and other works described Gopurams upto seventeen storeyed ones. The Śilparatnam and the Iśānaśiva-gurudeva-P. also say that Gopurams could have only seven storeys and not more. The Mayamatam, Śilparatnam etc. were therefore following an earlier tradition (though Śilparatnam was really a late work) than that followed by the Mānasāra which was a later book on architecture. So did the Kāśyapa-Śilpa refer to sixteen-storeyed temples, unknown even to the Mānasāra'.

Further again it is also remarkable that the Mayamatam is the only South Indian work in which it is stated that the Śikhara can be a in a shape like a ripe Āmalaka (18.15) which is a North Indian element of temple-architecture as is referred to in North-Indian texts like Purāṇas and the Śilpa works like the S. S. and the A. P.

This third observation raises a pertinent problem: how to reconcile the earlier architectural traditions with the later age of this text as Dr. Acharya contends and is supported by me in the previous discussions. The fact is that this ancient writer on Vāstuvidyā has been referred to, in the Matsya-Purāṇa (cf. 18 authorities on Vāstu-śāstra—vide Vāstu-lakṣaṇa) and Bṛhatsaṁhitā (which clearly refers to him as astronomer and an architect, and that in such a way as to indicate that he belonged to a different school) both of which are regarded as 6th century works. Bhattotpala's commentary on Bṛhat-saṁhitā also gives a quotation from the Mayamatam. These facts prove the early antiquity of Mayamatam. Dr. Bhattacharya rightly surmises that works like Mayamatam have under-gone many additions. The original Mayamata must be a very old treatise and the present mayamatam may be a later compilation by Ganammacharya. This is true of practically all old literature—Purāṇas, Āgamas, Epics (esp. the Greater one) and Tantras. The system of classification of temples in the published text of the Mayamatam therefore indicates that the

work is a later recension of the original work of Maya which was very old, and the new recension was done to fit the architectural style which prevailed in the Deccan after the 6th century A. D. Needless to enter into these controversial points. I have already paved the ground for further studies on this fascinating lore. A critical and comparative study of the representative South-Indian works has been a long felt dessidaratum.

Let us now peep into its contents. There are only thirty-four chapters in this text. The first is on the table of contents (cf. Mānasāra Ch. I)—vide Vāstu-lakṣaṇas. The second chapter deals with the definition of Vāstu and expatiates on the general scope of the science —the ground, the Bhūmi being the primary Vastu and others the temples etc. being its creation are Vāstu. The definition of Vāstu as Bhūmi, Prāsāda, Yāna and Śayana in the Mayamatam is an improved edition of that of the Mānasāra—dharā, harmya, yāna and paryaṅka. The third and fourth chapters, the Bhūparīkṣā and Bhūparigraha (cf. M. IV and V) deal with testing of soil and its selection in a traditional manner concentrating more on the unfit soils and their characteristics. The fifth chapter, Mānopakaraṇam, gives traditional system of measurements (cf. the first half) and deals with the fourfold orders of the architects—Sthapati, Sūtragrāhin, Takṣaka and Vardhaki and the equipment of their qualification along with the relative position of each. The sixth chapter, Dik-parīccheda is on Dialling to ascertain the orientation of the buildings, the cardinal points (cf. M. VI), referring also to manifold Sūtras—Pramāṇa, Paryanta, Garbha, and Vinyāsa, to be employed in these first operations. The next two chapters, Pada-devatāvinyāsa and Balikarma-vidhāna (M. VII & VIII) elaborate the site-plans, (as many as 32 as in the Mānasāra) and the presiding deities (as many as forty five of them) (VII) and offerings to be made to them (VIII).

Town-planning. The subsequent two chapters (IX & X) (M. X & IX) take up different categories of villages, towns and forts and their planning in details of respective dimensions, layouts, roads (manifold vīthīs), folk-planning and the planning of the shrines of the different deities on the allotted padas along with the planning of the shops and markets laid on the alloted plots—a unique feature of the town-planning as enunciated in these very detailed, graphic and glorious descriptions of this text. The Mayamata makes an exhaustive treatment of the proper distribution of the residential quarters interspersed with market-stalls (antarāpaṇikam). It deals exhaustively with the articles sold in them. The different types of villages and towns may

be left here to be treated elsewhere—vide also V. Laks. Mayamata's fort-planning is the richest prescription on the subject.

Temple-Buildings—the general principles and the particular edifices. The XI chapter 'Bhūmi-lamba' prescribes the dimensions of storeys, their types and employment in the edifices like Vimāna etc. to be occupied by gods and men (kings and princes etc.). The Garbha-vinyāsa, the XII chapter is a very detailed and rich treatment on 'Foundations' betokening a very advanced and flourishing condition of the life and culture of the time. The perfection of the foundation laying consists of a rich hoardage in the pit;

सर्वद्रव्यैस्तु सम्पन्नं गर्भं तत् सम्पदां पदम् ।
द्रव्यहीनमसम्पन्नं गर्भं सर्वविपत्करम् ॥

In the end of this chapter is also described the First Brick-laying, their qualities and dimension etc.

The subsequent six chapters (XIII-XVIII) deal with the essential equipments of a building-construction, pedestals, bases, columns, entablatures, joinery and making the finials and finishing the building The details may not be followed here as they need be taken in the sections alloted to these topics.

The next four chapters (XIX-XXII) are devoted to the treatment of storeyed buildings, one-storeyed to four-storeyed and many-storeyed buildings—'Ekabhūmi-dvibhūmi-tribhūmi-caturbhūmyādi-vidhāna'. These are evidently Vimānas, the characteristic edifices of South-Indian temples, a detailed notice of which may be reserved for the part devoted to temple-architecture. It may be remarked here that the text deals exhaustively with the Vimānas varying from one to four storeys with their respective varieties (making up only, 44 in contrast to 98 types exhaustively described in the Mānasāra) and those taking from five to 12 storeys are only just briefly mentioned.

It is however very interesting to note that our text while concluding this portion (cf. 22.93) echoes the style of North-India Vāstu-texts;

एवं संक्षेपतः प्रोक्तं प्रासादानां तु लक्षणम् ।

The next chapter the XXIII is on the Temple courts, the Prākāra-vidhāna and the Parivāra-Vidhāna (M. XXXI-XXXII) the latter part is of iconographical interest, the details to be followed in its proper place.

The subsequent chapters—Gopura-vidhāna, Maṇḍapa-lakṣaṇa and Śālā-vidhānā (XXIV to XXVI) deal with highly important topics

related to temple-architecture and they are to be purviewed in the chapter reserved for them. Śālās in the Mayamatam are not common residential houses as we have seen in the North Indian texts like the Samarāṅgaṇa-sūtradhāra and the Aparājita-pracchā. Śālās here, to all intents and purposes are storeyed mansions—grand edifices fit to be occupied only by an aristocracy of the clan or that of the mind. I do not think if these śālā-buildings as are portrayed in the Mayamatam or Mānasāram represent in any way a very advanced development of śālā-planning and its allied architecture from a bird's nest to the white Hall. They really represent altogether quite a new style of building under the popular garb of śālā-buildings.

House-architecture. The XXVII chapter entitled 'Caturgṛha-vidhāna' deals with the location of the houses and their measurements in details of the inter-planning of the accessory structures necessary in a living house. This chapter of the Mayamatam is very important from the standpoint of the canons of the civil architecture in India. The following chapter (XXVIII) Gṛha-praveśa is ceremonial in character and expatiates on the detailed ritual and allied ceremonial paraphernalia of house-entry. Its opening verse directs us that unless the house is fully finished, we should not make entry into it and if finished alright it should not be left vacant for long otherwise spirits come to dwell in it.

Palace-architecture. It is expounded in details of the planning of a royal palace. The chapter entitled Rājaveśma-vidhāna is really a masterpiece on palace-planning and its brief notice is reserved for the Part devoted to Palace-architecture. It may be pointed out here that the details of palace-planning tally with those of the Mānasāra with the difference that the present text does not worry with the different types of palaces. It is more concerned with its planning—the huge establishment and a large paraphernalia of a king's not only house hold necessities and pleasures, but also stately requirements. The following chapter elaborates on the door, both gates of the towns and entrance of the buildings of different kinds and incidently deals with components of adjacent structures windows, toraṇas, stairs ets. etc.

The last two chapters (XXXI-XXXII) on architectural portion of this text are details on conveyances and couches—completing the fourfold scope of Vāstu—Bhūmi, Prāsāda, Yāna and Śayana. Conveyances in the Mayamata mainly consist of Śibikā and Ratha. The former is taken up in the first 48 verses in details of its measurements, component parts and ornamentations etc., the latter is briefly treated in the remaining six to ten verses. Firstly it taks up the occasions of

the Rathārohaṇa like coronation, wars, auspicious festivals, worship and sacrifice etc. It may be constructed as a storeyed structure with manifold mouths 'eka-dvi-tritalopetamekam vāpi caturmukham' and its shape either follows a pavilion (maṇḍapa) or a śālā (storeyed mansion) (XXI). The next chapter on the subject takes up couches, the śayana in the details of dimensons, component parts and decorations. The details may be left out to be purviewed somewhere else.

The last two chapters of this valuable text (Liṅga-lakṣana and Pīṭha-lakṣaṇa) deal with sculpture and they have been referred to as noticed in my Vāstuśāstra Vol. II—Hindu Canons of Iconography and Painting (cf. Pratimālakṣaṇas) and the very rich details on these topics do not fall in the scope of this volume.

Śilparatna: This last representative manual may be regarded as the consummation of the architectural and sculptural traditions of Drāvida-deśa with the exuberance of a very rich heritage as evolved and developed in that part of our great country both in the domain of the scientific exposition and artistic creations. I have elsewhere remarked that all these three texts—Mānasāra, Mayamata and Śilparatna epitomise one and same tradition. Differences lie with the characteristics of the time and evolutions of the art.

This work is more exhaustive and elaborate than Mayamata though both follow one and the same tradition. The Śilparatna agrees more with the Mayamata than with the Mānasāra. Dr. Acharya's contention that the most of the chapters of this text are a literal abridgment of the Mānasāra may be only partially true. The Śilparatna does not refer to the Mānasāra and Doctor Acharya is angry with its author. I may however submit to the learned Doctor that the author of this text has taken material from the Mayamata and he does recognize his indebtedness to this manual by making the second salutation to Muni Maya (The first being made to Viśvakarmā). He also remembers a good many other Acharyas like Mātaṅga, Bhṛgu, Kāśyapa, and Agastya, etc.

It may be remarked that though Śilparatna owes a good deal of indebtedness to Mayamata, its chief source, however, lies in the fountain head of the Āgamas which like Purāṇas in the North, were harbingers of devotional upsurge in the South They gave rise to devotional places, the temples and devotional objects, the images of gods and goddesses, the chief subject-matter of the Śilpa-texts in India. This is evident from the prologue of the author of Śilparatna, Srīkumāra :

ब्राह्मं चात्रं च तेजोऽप्यहमहमिकया वर्णिते यत्र वीरे
तस्य श्रीदेवनारायणधरणिपतेराज्ञयाज्ञाकरोऽहम् ।
मन्दोऽप्यत्यन्तमोहादतिविपुलतरेभ्योऽथपूर्वागमेभ्यः
संक्षिप्तं शिल्परत्नं प्रलिखितुमधुना प्रक्रमे तत्क्रमेण ॥ ७॥

This Śrīkumāra was a Kerala Brahmin and it seems that he lived at the court of Devanārāyaṇa (cf. the reference in the above prologue), who is said to have ruled over a territory with a capital at Ambalappuzha now within the state of Travancore. He was a great patron of learning and entertained in his court the famous Nārāyaṇa Bhaṭṭa, a great poet and Vaiyākaraṇa and author of Nārāyaṇīya and many other works, and is known to have flourished in the latter part of the 16th century A.D. It is therefore certain, as surmized by the learned editor of Śil aratna, T. Ganapati Shastri that the author of the Śilparatna, a protigee of his, also lived in the same period.

Sri K. Sambasiva Sastri, the editor of the second part of this text, thinks that the determination of the date of Srikumāra is in need of further evidences in the light of the fact that the word, 'Devanārāyaṇa' in the above quoted verse is known to be a title of the rulers of Ambalappuzha, and the reference of the word 'सेतूर्ध्वकानन' in the salutory to Sadīnana, indicating the seat of Srikumara's family deity or Iṣṭadevatā which seems to be the Sanskritization of the Malayala Deśa Chiramelkkatu which Deśa is now found in Talapalli Taluk in cochin, state. Any way Sri Kumara is a later medieval author on the Śilpa and his work shows fullest of acquaintances with the later developments of Indian architecture especially the different traditions of temple building art. Dr. Bhattacharya's observations also support this—vide 'A study on Vāstuvidyā' chapts. XIII–XVI.

The complete text is divided into two parts, the first dealing with architecture and the second with sculpture—iconography. Painting is treated in the last chapter of the first part, avowdedly in relation to the Vimānas and Gopuras to be decorated with painting of all kinds : एवं सर्वविमानानि गोपुरादीनि वा पुनः । मनोहरतरं कुर्यान्नानाचित्रैर्विचित्रितम् ॥ शि० ४६–१ ॥ Similarly there are some five chapters arranged at the end of the second part of the text which seem to be a continuation of the first part dealing with human-dwellings, Manuṣyālaya (31), water reservoirs (32), house-hold furniture and useful machines, Āsanādi-paricchada (33), wages to the labourers, Karma-kāra-vetana and weapons etc. Śāstra-lakṣaṇa.

Let us now concentrate on the contents of the first part which deals with architecture and painting (cf. the last chapter—Citra-lakṣaṇaṁ the 46th). The first chapter covers as many as three preliminary topics. The first is the Maṅgalācaraṇa in which after paying his homage to Virañcādhipa, the creator Lord (1), he salutes the two primordial archi-

tects Viśvakarmā and Maya (2-3) and continues his homage to the ancient Acharyas of Śilpaśāstra—Bhṛgu etc. (a notice of which has already been taken) (4-3) and then remembers his father who was himself a pandita of Śilpa (6) and concludes with his patron, Sri Devanārāyaṇa already referred to. The second is the catalogue of contents, the 'Anukramaṇī' (the scope and the subject-matter of the śāstra as dealt with in the book). The third topic concerns with the qualifications—equipment and relative positions of the Acharya, the Sthāpaka and the fourfold guilds of Architects—Sthapati and Sūtragrāhin, Takṣaka and Vardhaki i e. Ācāryalakṣaṇa' and 'Śilpi-lakṣaṇa'.

The second chapter is a traditional treatment of measurements 'Mānasādhana'—(M. 2 Maya. 5). The third deals with Bhūmilakṣaṇa in respect of the relative superiority and inferiority of a land to be selected for building, its first fourfold types—Pūrṇā, Supadmā, Bhadrā and Dhūmrā from the standpoint of the tapography of the land and the second Vāruṇī, Aindrī, etc. etc. from that of the easy access of the reservoirs of water and fertility of the ground for exhuberance of vegetation. In the selection of building plot, trees also play an important role. Only auspicious trees like, Nyagrodha, Udumbara, Plakṣa, Aśvattha etc. can be accommodated. In the end an important topic of the declivity or proclivity of the ground, what is technically called Plavavicāra is also briefly hinted at (M. 4, 5; Maya 3, 4).

N. B. Dr. Acharyā contends (perhaps on the superfluous identitity of the titles of both the works) that the Śilparatna is a verbatim rendering of the Mānasāra which is completely devoid of truth. Take for instance the present chapter and the classification of the different types of Bhūmis in it and you will find these types with their details agree neither with those in the Mānasāra nor even the Mayamatā. It follows quite a different tradition, I mean the Āgamas, and its classification of Supadma etc. tallies with that of the Tantrasamuccaya which is also a follower of Ā amas.

The 4th chapter deals with two topics, the Śaṅkusthāpana and Halakarṣaṇa under its technical title of 'Śūdra-parigraha-prākāra' both of which are very prudently very economically dealt with. Now without taking up the most important of the preliminary topics, the 'Pada-Vinyāsa' our text starts with 'Grāmādilakṣaṇam' which ought to have been followed afterwards. This chapter is of unique importance as it explicitly deals with the planning of gardens, orchards etc. as an essential equipment of an Indian village-plan or town-plan. The details of this chapter on villages and towns first consist in giving the different types of human habitations like Kākinī, Vartanā, Khāṭa,

Kuṭitā (or ekabhoga), maṅgala, grāma, pura, maṭha and then enumerates 14 kinds of theses settlements a notice of which may be taken in its proper place. Then follow the details of their planning, the vinyāsa-bheda, in details of measurements and roads and in accordance with the latter criterion as many as eight types of villages emerge, the Daṇḍaka, Svastika ete. Then follow the equipment of gardens, parks, flower-orchards and reservoirs of water, the vāpīs etc. Further next it briefly deals with the partitioning of the respective varṇas and professionals—the folk-planning. In the end it expatiates on the capital.

The sixth chapter is devotcd to 'Pāda-vinyāsa', all those 32 types already noticed in the preceding manuals. The seventh is related to Vāstu-pūjā incidently bringing the origin of Vāstu, a legendary account of Chāgāsurā etc. cf. also the Aparājita-pracchā where this topic has been more elaborately brought out.

In the 8th chapter again d^tails of village-planning are continued especially the planning of village-gates. The next chapter takes the foundation and dedication of the village shrines and the subsequent chapter takes up Foundation and its allied accessories of Ādhāraśilā, Kūrmas and Kumbhas (nidhikumbha etc.) Next in the 11th chapter the Indian technique of dialling and ascertaining the cardinal points by means a gnoman along with levelling of the ground what is technically salled 'Caturaśrīkaraṇam' is elaborated. The subsequent chapter (12) again takes up the foundation details what is technically termed as 'Garbhanyāsa' in all kinds of plannings and buildings and incidently brings, in the traditional topic of brick-laying of the Prathameṣṭikā etc. The 13th chapter again takes up the topic of Vāstupadas, especially the different and manifold limbs of Vāstupuruṣa what are called śirās and nāḍis etc. under a peculiar designanation (coined by this text) 'Avāstukārmaṇa-jñānam' and expatiates also on their vedhas and the resultant miseries.

Temple-architecture. Now follows a detailed treatement of temple-architecture. The 14th chapter is devoted to the different substances of which a temple is made, stone, bricks, lime, wood or timber, clay, and metals. This chapter is of unique importance and the presentation is most systematic and methodical, hardly to be found in any other Śilpa-text.

The subsequent chapter (15) is again a preliminary chapter wrongly placed here. Ayādilakṣaṇa is one of the fundamentals of an Indian building-construction. It ought to have been so arranged.

So is the case with so many other chapters—Re-arrangement of the chapters, therefore is called for and an attempt in that direction will be made in the last. Resuming the lost thread—the contents of this chapter—first it takes up the three primary Sūtras, the Māna, the Vinyāsa and the Avasāna and then takes up the topic in hand which is usual exposition in practically all the texts. Then follow temples proper under the heading of 'Prāsādalakṣaṇa' which is a new element altogether in the treatment of temples as treated by the previous two treatises of Southern architecture. This text deals with temples in two places, the present chapter and those which follow it and the 37th. In the latter are treated the Dravidian Vimānas, the chief characteristics of which are the storeys from one to many (12 or 16). This is in quite keeping with the evolution and develompent of temple-architecture by the time this text was compiled. Both the styles of temple-architecture had become a universal composite style of Hindu architecture in India. The medieval and later medieval texts like the S. S., the A. P. and the S. R. show this composite character of our architectural history. Let us now proceed with the details of temple-architecture as presented by this text.

The first verse of the present chapter (16th) defines 'Prāsāda, in a quite new manner. Prāsāda, the Hindu temple is the child of Vedic altar and therefore the formation of the word—प्र + आ + साद् प्रकर्षेण आ समन्तादृसदनं (सादनं वा) सादः (दृष्टिकानामित्यर्थः) इति प्रासादः—literally bears out this ancient tradition. Śilparatna, however, gives altogether a new definition from the standpoint of artistic sensibility, or more correctly from the aesthetic point of view:

देवादीनां नराणां च येषु रम्यतया चिरम् ।
मनांसि च प्रसीदन्ति प्रासादास्तेन कीर्तिताः ॥ शि० १६–१

In the second verse he defines Vimāna, the chief characteristic of which is the manifold technique of measurements. This I consider to be an original contributions of this text, so far not brought out in prominence elsewhere. It is curious to see that Dr. Acharya takes this chapter on palaces—vide his notice of the text H. A. I. A. p. 176, which is countrary to facts. It treats not palaces but temples (deva-vimāna) following the Āgamas. The subsequent details of this chapter relate to the measurements of heights, the number of storeys (1 to 12) and the different classes or varieties (Nāgarādi), Alpa-Prāsāda, Mahāprāsāda (along with their names). It is remarkable that the different Prāsādas which have been divided here into 20 and 30 classes are similar to the classifications found in Northern texts. Some of the Āgamas like Karṇāgama also follow this method. An

interesting notice of the contents is the allotment of the different storeyed buildings to the different ranks of deities and royalties. The twelve-storeyed buildings can be occupied by only the superior gods like Brahmā, Viṣṇu and Śiva. This chapter also defines in its own manner the three main styles of temple-architecture, Nāgara etc.

Next follow the details of the component parts of temple, the pillar, base, pedestal etc. etc. The 17th chapter deals with Adhiṣṭhāna. the base of the temple and is very aptly defined (cf. the opening first three lines). It also deals with its socle, the upapīṭha and the details of pillar also accompany them. The next chapter delineates upon the different limbs of upa-pīṭha in its manifold varieties of Vedi-bhadra, Prati-bhadra etc. Then is taken up the adhiṣṭhāna proper (19) which is of fourteen types There are other details as well intermixed with some foreign details like gṛhārambha which may be a misarrangement of the topics by the scribe. Base and column—both these topic having been dealt with—also require a companion member, the Nāla (20) channels through which water has to pass. The following chapter is very important. It (21) deals with walls, vedikās, and columns. Fivefold walls those made of stone, Śilāmaya, bricks, Iṣṭikāmaya. Jālakamaya (i.e.) studded with windows, Phalakamaya i.e. wooden and Mṛṇmaya (made of clay) along with their mortar and mouldings have been elaborated. Then are taken up the vedikās—Puṣpakhaṇḍā, Citrat-khaṇḍā, Śaivālā, Citra-śaivālā and their decorative motifs. Further details comprise the treatment on pillars Brahma-kānta, Viṣṇukānta, Skandakānta, Candrakānta, Īśakānta, Rudrakānta, their shapes, mouldings and other decoratives along with their Kumbhas (the pichers), Ssīkara, Candrakānta, Saumukhya and Priyadarśana (of 4 varieties). Further details relate to the component parts of a pillar.

The next chapter (22) is on doors in details of relative dimensions and component parts like Kavāṭa (of fourfold varieties—yuga, ayuga, saṁhāra and dhāvana etc.) along with their manifold accessories, decorations etc. In the end the stairs (Sopāna) in relation to the doors have been delineated upon.

Now the following fourteen chapters are devoted to decorative structures and mouldings and apartments, both of the superstructure roof and topmost part of a Vimāna-temple. The 23rd chapter deals with arches—3 types, Patra-toraṇa, Makara-toraṇa and Citra-toraṇa. Column-arches are also hinted at and in the end is given an enumeration of the auspicious decorations to be employed on buildings especially the doors. These are called aṣṭamaṅgalas like mirror, full

picher, bull, pair of cāmaras, Śrīvṛkṣa, Svastika, Śaṅkha, Lamp etc. etc. Then follow details of Jālaka, the screened windows (24); Kūṭa-koṣṭhādi, the top-rooms (25) Pañjara, cages (26) in great details; Vṛttasphuṭita, an ornament (27), Kumbhalatā another ornament (28), Uttara (29) another decorative motif in relation to the pillars, Prastara (30), the entablature of the pillars, Gala (31) the neck (of the the Vimāna proper); Śikhara (32), the spherical roof, the topmost superstructure, in manifold varieties of Pāñcāla, Vaideha, Māgadha Kaurava, Kauśalya, Saurasena, Gāndhāra and Āvantika and their heights in sevenfold varieties of Kāliṅga, Kāśya, Vārāṭa, Kaulaka, Saunḍika, Kāśmīra and Gāṅgeya; Lupā (34), the slopping roof (in rich details); Mūrdhneṣṭakā (34), the topmost ornament; Nāsikā (35) the Vistibule, along with the 'Mūrtinyāsa, the installation of images on the body of the Prāsāda or Vimāna and Stūpikā, (36) the dome along with its pitcher, the Kalaśa.

As already remarked the text deals with the temples at two places. Another characteristics treatment of storeys now follows under a peculiar title 'Śāntikādi-niyama'. We have already commented on this character of classification of Vimāna-buildings as associated with this work in the light of Dr. Bhattacharya's observation. Evidently this chapter describes Śāntika, Pauṣṭika, Jayada, Adbhuta and Sārvakāmika classes—a division of buildings according to height--one storeyed structure to twelve-storeyed ones. The next chapter (38) again uses the word 'Prāsāda' which is all very confusing intermixture of two traditions, the Prāsāda-architecture and the Vimāna-architecture under the title 'Vṛtta-ṣaḍaśrādi-prāsāda-lakṣaṇam' or we can make another surmise that the Śāntikadi buildings and their height etc. are related to Vimāna-architecture and the present chapter, like-wise, refers to the details of shape and proportions of measurements etc. in relation to Prāsāda-architecture.

The next chapter is devoted to Maṇḍapas, their characteristic architecture, their different classes—Mukha-Maṇḍapa The subsequent chapter (40) takes up Prākāras in the style of the Mānasāra the fivefold types Antar-maṇḍala, Antarhārā, Madhyahārā, Vāhyahārā and Maryādā or Mahā-maryādā and their varied and rich details. In the concluding portion Dīpa-mālā is also characteristically described. This was the light-arrangement of those days Now 41st chapter is occupied in the delineation of. Gopura-architecture, their types, dvāraśobhā etc. five varieties, their employment in the respective Prākāras with respective storeys (from six to eighteen). The next chapter is reserved as is usual with sister texts like Mānasāra and

Mayamata, for 'Parivāra-vidhāna' from 8 to 32 parivāra-deities their locations etc. The chapter is of iconographical interest. The subsequent two chapters are on Bali-pīṭha and Dhvaja respectively. Then follows a chapter on 'Sandhi' which again is not wanted here. It is a big chapter on 'Joinery'. The last chapter is on 'Painting' a notice of which is already attempted.

This brief notice of this manual, as already remarked, shows that the arrangement of the chapters is faulty, more faulty than that of the S. S., an attempt therefore at its re-arrangement is called for. The following table will give the required systematisation.

The Śilparatna, Re-arranged

Broad Division of the subject matter	No. of the R. A. chapters	Contents	Nos. of the original chapters
I Preliminaries	1	Maṅgala, Anukramaṇī, Acāryalakṣaṇa and Śilpi-lakṣaṇa	1
	2	Māna	2
	3	Bhūmilakṣaṇa	3
	4	Śūdra-parigraha and Halakarṣaṇa	4
	5	Pada-vinyāsa	6
	6	Vāstu-marma	13
	7	Vāstupūjā	7
	8	Dik-pariccheda	11
	9	Āyādi-lakṣaṇa and Kāsyapakṣa	15
	10	Garbha-nyāsa, the Foundation	12
II Town-planning	11	Grāmādi-lakṣaṇa—villages, towns, capitals, garden-cities including the tanks and Vāpīs therein	5
	12	Gramādīnām dvāravidhiḥ	8
	13	Gārmādiṣu devālayaniyam-vidhi—the foundation and dedication of temples	9
	14	Gṛhārambha (vs. 112-15)	21
III Civil planning (Residential Houses and their architecture)	15	Manuṣyālaya-lakṣaṇam — in details of Vedīs, Vīthīs, manifold varities of Śāla-bhavanas, doors etc. etc.	31 (Pt. II)
	16	Asanādi-pricchada-lakṣaṇam — Household furniture like couches, fans, umbrelas, cots, conveyances, palanquines, chariots, boats, mañca, vetraka, pādukā ulūkhala, tulā, taila-droṇi. jala-yantra, ikṣu-yantra-nāḍī-yantra etc. etc.	33 (Pt, II)

N. B.—As regards Temple-architecture—this text expounds this subject according to both the famous schools of Indian Architecture viz. the Nāgara and Drāviḍa. The Śilpratna, as already remarked is comparatively a modern manual, hence by its time both the styles of temple-architecture were fully developed. Naturally this subject is not very haphazardly treated. The treatement of the subjet in chapters 14-43 is alright The two chapters in the end of the 1st pt. i e. Sandhikarma and Citralakṣaṇa though apparently ill-arranged, nevertheless justify their grouping in the context of temple-architecture where Sandhikarm with esp. ref. to timber and the painting on the walls are justified.

We have thus trodden a very long path noticing (though very briefly indeed) as many as six standard manuals of Hindu architecture. What have we gained? Firstly our architectural traditions have retained a character, a changeless back-ground, the Ādhāra and allowed a changing edifice, the Ādheva. This is truely Indian. Secondly all these texts owe their origin to a common fountain, a neo-religious upsurge as propogated by the Purāṇas and Āgamas in both the parts of our land, the North and the South. Consequently our architectural traditions are not only religious in their origin but also mystic in their evolution. This mysticism is the philosophy of architecture what is the martix of Indian architecture and its perfection as well. This is a general estimation of our architectural lore as is presented by these representative texts.

The next question which was put in the beginning, still remains to be attempted, namely are all these texts equally representative? Yes they are all equally represntative in the context of the different evolutions of the art. The Mānasāra. to my mind. is the earliest representative text on Drāviḍa-Vāstu-vidyā when lofty palaces served to all intents and purposes, the abodes of gods and god-like kings. This is really a very daring proposition, but it is my own thesis as per my theory that Dravidian architecture is earlier than Nāgara-architectutre or the Northern Prāsāda-architecture. Archaeological evidences may not prove this contention of mine, but cultural history of our very ancient land as per the recent finds at very ancient sites like Mohenjodaro and Harappa have proved it cf. the previous chapter 'An outline history of Hindu Architecture' (both as a science and art). The Mayamata represents a later phase when admixture of Aryan and non-Aryan traditions of the art had begun. The Śilparatnā may be regarded as the consummation of this tendency when all-India-Hindu composite-architecture had taken its emergence. Similar is the story of the Northern texts, the Viśvakarmā's works, the S. S. and the A. P. and a detailed discussion may not be attempted as much has been said in the preceeding pages.

CHAPTER VI

FUNDAMENTAL CANONS OF HINDU ARCHITECTURE

In the preceding pages we have already covered a sufficient ground to enable us to proceed now with the foundation of the edifice of the Science. The question is: What are the fundamental pillars on which this great edifice of Hindu Science of Architecture stands? We shall see (vide Pt. III House-Architecture) that the central post was the prime regulator of house-construction in India. It was as fundamental as the trunk of a tree. Tree-model was the primordial model of a house-plan (cf. the story of the birth of human home—the Śālā-house Pt. III) and the abundant application of pillars was one of the chief features of an Indian building whether a residential house or a palace, a sabhā or a temple (or more correctly a temple-pavillion, Prāsāda-maṇḍapa). Naturally you cannot say which pillar or pillars are more basic than others. But if you ponder over the problem and visualise the basic importance of the structure, you must come to the conclusion that as many as five pillars carry cardinal worth with them. These are the four cordinal and one central posts. Similarly sustaining the analogy, to my mind, there are the following five fundamental pillars of the stable edifice of our science and we can call them the fundamental canons:

1. Diṅnirṇaya, Doctrine of Orientation.
2. Vāstu-pada-vinyāsa, the Site-planning.
3. Māna, (Hastalakṣaṇa), the proportionate measurements of a structure.
5. Āyādi-Saḍvarga, the Six Canons of Hindu Architecture.
5. Patākādi-Saṭ-Chandas—the character of the building (its aspect and prospect etc.)

The standard manuals of Hindu Science of architecture expound a large number of canons of architecture. This we have already seen. But a selection has to be made to bring home to the readers, the unique character of our Vāstu-śāstra, which, though on par with many an ancient cognate treatises like the one attributed to Vitruvius, the great Greek-architect-writer, has its own character which gives to it a unique importance in the context of cultural content of Hindu civilization which has always been glorified (or more correctly damned) as a spiritual civilization and hence devoid of any civil sense in the

matters of house-planning. We are misrepresented that we could only build great temples and there was no civil or popular or secular architecture in India. A brief exposition of all these fundamentals must dispell the darkness shrouding our vision. Let us take these one by one.

I—DINNIRNAYA OR PRĀCĪ-SĀDHANA

Diṅnirṇaya or Prācīsādhana is done through a technical device called Śaṅkusthāpana. Śaṅku is the gnomon by means of which the cardinal points are ascertained for the orientation of building. Hindu treatises on the science of architecture deal with the rules as laid down on the principles of dialling under this title of Śaṅkusthāpana. Astronomical treatises like Sūrya-siddhānta, Siddhānta-śiromaṇi, Līlāvatī, Brahma-siddhānta-sphoṭa of Brahmagupta and Pañcasiddhānta of Varāha-mihira and architectural treatises like Mānasāra (Ch.VI), Mayamata (VI), Śilparatna (XI), Kāśyapa-śilpa (1), Vāstu-vidyā (III), Manuṣyālaya-Candrikā (II) and Tantrasammuccaya, Īśānaśiva-gurudevapaddhati etc. etc. have all dealt with this cardinal principle of architecture.

It has two principal aspects the technical device and the scientific-cum-philosophical import. Let us take up the first.

The Mānasāra's technique (vide V. L.) consists of the device as laid down hereunder:

"The gnomon is made of the wood of certain trees. It may be 24, 18 or 12 aṅgulas in length, and the width at the base should be respectively 6, 5 and 4 aṅgulas. It tapers from the bottom towards the top.

For the purpose of ascertaing the cardinal points, a gnomon of 12, 18 or 24 aṅgulas is erected from the centre of a watered place (salila-sthala) and a circle is described with the bottom of the gnomon as its centre and with a radius twice its length. Two points are marked where the shadow (of the gnomon) after and before noon meets the circumference of the circle. The line joining these two points is the east-west-line. From each of these east and west points a circle is drawn with their distance as radius. The two interesting points, which are called the head and tail of the fish (timi), are the north and the south points. The intermediate regions are found in the same way, through the fish formed between the points of the determined quarters.

As regards the principles of dialling, each of the twelve months is divided into three parts of ten days each and the increase and decrease of shadow (avachchhāyā) (cf. Vitruvius, Book IX, Chap. VIII, '...the principles of dialling and the increase and decrease of the days in the different months'—translated by Gwilt), are calculated for these several parts of the different months".

The Tantra-samuccaya (vide Mallaya) on the other hand prescribes the technique with some difference:

"The direction contained in the text is simple. It is with reference to the land which is situated either to the north or south of the equator (Akṣa). Level the ground (in a Sākṣadeśa) and plant a gnomon at the centre, the gnomon being of 12 aṅgulas of length. Describe a circle round it with a radius more than its length (say double the length). During the course of the sun from morning till evening three points will be secured, two touching the circumference and one in the centre, the interval in the course of their marking being equal. The three points are obtained by marking the end of the shadow projected during three different times, the interval between them being equal. With these three points as the centre, draw three circles of the same radius. Two figures in the form of two fish will be produced where the circles cut. The head and tail of each fish will lie in the North-South direction. Strike two nails at the points (i.e. head and tail) of each fish and then extend two threads cutting through the central cord of the two fishes. At a certain point in the North (when the sun is in the South of rhe Equator) these two threads extended will meet. From this meeting point in the north extend another thread southwards till it joins the central point at the base of the gnomon. This thread which joins the northern point with the point at the base of the gnomon will give the North-South line. Having found the due North and South as described above, with the two points (i.e. meeting-points northern as well as southern) as centres two circles should be described. A figure in the form of a fish lying in the direction East-West will be obtained. Hold a thread joining the head and tail of this fish, and the due East and West will be known".

The method that is described in other texts like the Mānasāra is a little different. According to the Mānasāra only two circles are to be drawn and consequently one fish will be secured while determining the North-South line. The author of T. S. describes in the wake of Gurudeva, who after having laid down the usual procedure (cf. Īśānaśiva-gurudevapaddhati Vol. III, T. S. S. Edition, Paṭala XXIV,

stanzas 1 to 13) remarks that it is good so far as the land lying on the equator is concerned. As regards land lying to the North or South of the Equator, the method is different, and in this context he prescribes the method that we have observed just now. Gurudeva (vide V. L.) has prescribed two alternatives in respect of the land lying whether on the Equator or to the Nort or South of the Equator and the author of Tantrasammuccaya has followed the latter alternative. Both these devices may be illstrated in the diagrams appended in the appendices.

It may be interesting to note that this device of dialling and ascertaining the cardinal points of heaven was also popular in other ancient countries like Greece and Rome. Vitruvius, the celebrated Greek writer-architect has similar prescriptions and the following quotation from Gwilt's translation would bring home to the readers the universal importance of the technique adopted in ancient time: "Let a marble slab be fixed level in the centre of the space enclosed by the walls, or let the ground be smoothed or levelled, so that the slab may not be necessary. In the centre of this plane, for purpose of marking the shadow correctly, a brazen gnomon must be erected.

The Greeks call this gnomon skiatheras.

The shadow cast by the gnomon is to be marked about the fifth anti-meridional hour and the extreme point of the space whereon the gnomon stands, as a centre, with a distance equal to the length of the meridian, watch the shadow which the gnomon continues to cast till the moment when its extremity again touches the circle which has been described. From the two points, thus obtained in the circumference of the circle, describe two arcs intersecting each other and through their intersection and the centre of the circle first described draw a line to its extremity; this line will indicate the north and south points."

Needless to quote further as Vitruvius has much more elaborations to complete the whole technique full of diagrams.

With this brief outline of the device, let us come to its significance in the context of an architectural planning from a stand-point of scientific implication.

"With the Hindus, orientation played a very important part in the scheme of their daily life, as to them the Sun was the giver of all life. Even, a witness had to face the East during the process of examination. (Vide Institutes of Manu). This love of orientation had permeated their ideas of design The full significance of this

aspect of the Hindu mind would be appreciated as the underlying theory is grasped.

The theory of the orientation of buildings, secular as well as ecclesiastical, as laid down by Indian designers of structures consists in setting them in plan in such a way that they may secure the maximum of benefit from the solar radiation automatically and irrespective of the fact whether occupants will it or not. Temples, living places, assembly halls, audience rooms and a host of structures to meet the needs of men of all grades, are, thus, so adjusted in plan as to secure an eastern frontage. The minutest rules are prescribed for the most advantageous setting of structures with this end in view. When once the site of premises is selected, the next step consists in the determination of true East, for which elaborate rules are laid down and even as the construction progresses from the base upwards to that top, several independent checks are imposed with a view that no deviation could be made by workers, during different stages of construction so that the finished structure would have a truly eastern frontage.

Fixation of cardinal points, thus, occupied a prominent place in the preliminary operations of building construction, just after the selection of site and before the actual construction starts.

Khāta and Śilānyāsa, it may be pointed out, have an ulterior significance constructively as well as ritualistically. This later aspect regarding ritualistic process will be dealt with in detail later on.

The eastern facet of structures, both in plan and elevation, when truly set in direction, according to the rules laid down as shown above, gets a full and direct exposure to the field of action of solar radiation. As soon as the early dawn breaks, the eastern varandah is flooded, so to say, by the early invisible ultra-violet radiation which is the first in order to be felt; as the dawn advance into Uṣa, Aruṇa and actual sunrise, the different luminous visible rays go on impinging that facet. They can thus be utilized as the exigencies of life demand, as towards sunrise all the radiations from ultra-violet on the extreme northern end of the eastern facet to the whole range of visible radiation, ending in Infra-red on the extreme Southern end of the same have their full pay. It has been observed that ultra-violet radiation has recieved more attention than the visible and Infra-red radiation, owing to the fact that it produces fluorescence, photographic action and many known biological effects.

It is very significant in this phase of Indian thought that both the extremes of this eastern belt are denoted by Īśa (N. E. portion) and Agni (S. E. portion) the counterparts of, so to say, ultra-violet or violet and Red or Infra-red radiation of the Solar spectrum of the Western science. The very names Īśa and Agni and their individual lakṣaṇas, which are given to these quarters from earliest times in the Indian History go to suggest that the phenomenon of refraction and diffraction (dispersion) were well known to Indian Aryans.

Indian architects were not slow in availing themselves of the co-operation of the priestly class wherever necessary. In order that structures may not be marred by the slightest deviation so for as their true East and West were concerned, the Sthapatis had devised means where, with the principles of orientation was rigidly maintained throughout the actual construction starting from the Khāta (laying a foundation) right upto the extreme top.

It was for this security that they had requisitioned the aid of ritualism.

At every distinctive stage of a structure where the possibillity of disturbance was foreseen, there were enjoined ritualistic ceremonials in order that they may serve as checks to the work of construction" Mankad.

Lastly as regards the philosophical import, this technique of the orientation of buildings is very intimately related with another equally significant and important canon, the Vāstu-puruṣa-maṇḍala, the metaphysical plan of a Hindu building, a temple-diagram or a site-plan of a residential house. 'The surface of earth, in traditional Indian Cosmology, is regarded as demarcated by sunrise and sunset, by the points where the sun apparently emerges above and sinks below the horizon; by the East and West and also by the North and South points. It is therefore represented by the ideogram or maṇḍala of a square. (The square does not refer to the outline of the earth. It connects the 4 points established by the primary pairs of opposites, the apparent sunrise and sunset points, East and West; and South and North. The earth is therefore called 'caturbhṛṣṭi', four-cornered (R.V. X 58,3) and is symbolically shown as Pṛthivī-maṇḍala, whereas considered in itself, the shape of the earth is circular, (R.V. X. 89.4; S.B. VII. I. I. 37). The identification of the square with the Vedi is in shape only and not in size and belongs to the symbolism of the Hindu temple. The Vedi represents and is the levelled earth, a place of sacrifice or worship: "No part of the ground should rise above it; for it was from

there that the gods ascended to heaven" (S B. III. 1. 1. 1—2). The site, the earth, should be even and firm, for it is the starting place of the ascent (S. B VIII 5. 2. 16). The link between the earth and the end of ascent stretches upward into space, the intermediate region (antarikṣa). From it also it leads downward and rests on earth. In it the temple has its elevation. The Vāstupuruṣamaṇḍala, the temple-diagram and metaphysical plan is laid out on the firm and level ground; it is the intellectual foundation of the building, a forecast of its ascent, and its projection on earth.'—H.T. (pp. 17.)

II—VĀSTU-PADA-VINYĀSA—THE PLAN

A general introduction:—Vāstu is primarily the planned site of the building. As a rule its shape is square which is the fundamental form of Hindu architecture. Its full name is Vāstu-Puruṣa-maṇḍala. Vāstu, Puruṣa and Maṇḍala are eqully important and significant. The identity of Vāstu with Puruṣa is symbolic of metaphysical import. It is more significant in case of temple-architecture where the image of the supernal or Cosmic Man, the Puruṣa is congruous and identical to the planned site. 'Maṇḍala denotes any closed polygon. The form of the Vāstu-puruṣamaṇḍala is a square. This is its essential form. It can be converted into a triangle, hexagon, octagon and circle of equal area and retain its symbolism (Bṛhatsamhitā, Ch. LII. 56, Comm.). These forms—the square and circle—have Vedic origins, Baudhāyana's prescription of 'Caturaśrīkaraṇa' (vide Śūlva-sūtra 7 22-28) is a testimony. It is in accordance with this ancient tradition that Śilpa-texts like Mayamatam (III. I) and Vāstu-vidhāna (Ms. Adyar library) of Nārdada, emphasis the shape of the Vāstu as square. The Vedic origins relate to the shapes of Fire Altars the Mahā Vedic and Uttara Vedi etc. which are square as a rule. Prof. Kramrisch rightly interprets this second tradition: "The square, as fundamental figure of sacrificial symbolism and temple architecture, lends itself to many variations. Baudhāyana prescribes the construction of the Sārāratha-cakracit and the commentator explains how to form at first a small square with 4 bricks in the middle of the Agnikṣetra, then to enlarge this square, to one of 16, etc. This method has become known in the West, through Aristotle, as the Pythagorean 'gnomon'. It is in this way too, that the various types of the Vāstūmaṇḍala are enumerated in Vāstūśāstra in a progressive series of 1, 2, 3, 4 units square, etc., the most sacred being the plan of 64 squares, preserving the meaning of 64 which is exemplified in "64 bricks form the spokes of the wheel, 64 the Vedi".

The Vāstu-puruṣa-maṇḍala of Indian architecture takes it symbolism and significance from the Square Maṇḍala of the Earth and of

the Ecliptic. Prof. Kramrisch has made a very lucid and brilliant exposition of this element of the Vāstu-puruṣa-maṇḍala on the authority of the Vāstu-vidhāna of Nārada, very important ancient text on Hindu Science of architecture and readers are referred to read this exposition—vide H. T. P. 29-39. A more relevant portion of this exposition may be reproduced: "The square 'cakra' or maṇḍala is a closed polygon symbolical of recurrent cycles of time. Pṛthivī-maṇḍala and Vāstu-maṅḍala are both squares; the one connotes the earth ruled in its life by the apparent movement of the sun and filled in its extent by the equilibrium of the pairs of the opposites on which this order is established. In its whole extent it is a Vedi, and this is also true of the Vāstumaṇḍala into which it is incorporated. In the form in which the Vāstumaṇḍala is the 'plan' of the temple and regulates the rhythms of its groundplan (adhaśchanda, talacchanda) a further accentution of its squareness is the rule. In the sub-division of its sides or borders from four to eight and up to thirty-two, the original geometrical progression, fixing positions, can be seen at work. The 32 positions, four times eight in space, are held by divinities identified with those of the mansions of the moon, by some schools. The border in its continuity is associated with the course of the moon, and inasmuch as it faces the eight directions it is associated with the stations of the sun".

"The Vāstu had come to be the place of the adjustment of solar and lunar cycles. The number 32 of the divinities residing in the squares of the border of the Vāstumaṇḍala is also the sum of 4 and 28, the number of the regents of the four planets who rule over the equinoxial and solstitial points referred to the cardinal points, and of the reagents of the 28 Nakṣatras. Their location in the Vāstumaṇḍala shows a reconciliation of the motions of the Sun and the Moon, and they have their nature in their number which is 32; the single divinities who make up this sum act each as a locum tenens'. In Vāstuśāstra they are nearly unanimously identified with the divinities whose names are shown in the border of the Figure appended in the end —vide Appendix A, following the 'Bṛhatsamhitā, LII. 43f. The evidence of the S. S. and the Mānasāra would be just following. It may be remarked in the words of Prof. Kramrisch (H.T. p. 37) that the form of the square is the stage on which is drawn, while it is being acted, the movement of sun and moon and that of their years in their unequal course, their meeting, reconciliation and the fresh beginning towards one more coincidence. Such inequality, such imperfection are the cause of existence; the seasons similarly are brought about by the axis of the earth being inclined to the plane of

its orbit. The obliquity of the axis of the earth, the inequality of the motions of sun and moon, produce the cycles in which we live. Were it not so, were all coincidence, life would be reabsorbed into perfection, into the infinite which is beyond manifestation.

On this Vāstu dial of cosmic movement where obliquity and discripencies appear straight and square, care must be taken not to interfere with the movements and the ways in which they are laid out, for on their courses depend the order in the universe and the destinies of human lives. The science of architecture is part of the science of the luminaries; the time for setting up a building, its place and the direction it has to face, are ascertained on the magic diagram of the Vāstumaṇḍala.

The very imperfection which is the cause of the existence of the world serves as the basis of all astrological forecasts and astronomical calculations. There is always a remainder. For nothing could continue if nothing were to remain. The place occupied by anything in the present, is in the residue of the past. The name of Vāstu, derived from Vastu, a really existing thing, signified residence as well as residue (S. B. I. 7.3. 18-19)."

Other details like symbolism of the square, the form of Mārtaṇḍa, Vāstu, the Remander etc. etc. may be left here for want of space as they are well expounded in Dr. Kramrisch's book 'The Hindu Temple'.

In the preceeding paragraphs some idea has been brought out of this fundamental canon of Hindu architecture from the stand point of the applied knowledge, the ritual, the Jyotiṣa, and the meta-physics. Now before we take up its exposition from the standpoint of the implied practice, the engineering of the site-plans as is enshrined in the text books of architecture, a few words may be added on the organism of the plan which is the bed rock of the origin of Hindu Temple Architecture (cf. the Organic Theory Pt. V). 'The lines by which the square plan is divided into small squares, the two diagonals of the plan and the "lesser diagonals", 4 or 8 in number, and drawn parallel to the former have a definite width, proportionate to the size of the plan. The width of the main diagonals in a plan of 81 squares measures as many finger breadths (aṅgula) as the side length of the small square measures in cubits (hasta. Br. S, LII. 62-63); and the straight lines have one and a half times this width. Their intersection (marma; a vital, or vulnerable spot) measures one eighth part of one square in the plan of 81 squares. (The Marmas are of special impor-

tance in the site-plan. Where the Vāstumaṇḍala is co-extensive with the Prāsāda, they affect the position of pillars in temples as described in the 'Samarāṅgaṇasūtradhāra, ch. XLIX. In brick and stone temples such as are preserved, the Marmas affect the positions of windows, buttresses, etc. of the wall of Prāsāda). The division of the square and also the divisional lines themselves are measured in proportion to its total extent. No building, or part of the temple must be placed on these vital points". "Further the lines are not mere geometrical connections; their prototype has the measure of Breath; they have direction and width; while they form a net cast over the plot, they also share in its extent, represent it in an aliquot ratio and their points of intersection are the vital parts and tender spots (marma) of the site. These must not be hurt or interfered with by setting up pillars, doors, or walls, on them.' The places which must not be encroached upon by doors, walls or pillars, beams, etc. and windows (gavākṣa, vātāyana; Br.S. Comm.; LII. 57, 'Samarāṅgaṇasūtradhāra', XIII. 10-16), at the concurrence of the lines (sūtra) are listed on p. 55. (The 'Bṛhat-Samhitā' enumerates 9 specially vulnerable spots (atimarma) and gives the proportionate size of the tender spots (Marma). These are grouped according to their importance and specified in the later texts according to the lines which meet, diagonals and orthogonals, and their number, at each respective crossing. The size of a vulnerable spot is given in the 'Bṛhat-Samhitā' as 1/8th of a square (the whole plot being divided into 81 squares). The 'Samarāṅgaṇasūtradhāra' however gives to the conjunction of 8 vamśas (=8 stūras, at their meeting point) the extent of the tip of a hair (bālāgra); that is, the concurrence is just a point. The 1/8th of a small square of the 'Bṛhat Samhitā' does not correspond to the actual extent of 'marma'; it appears more as a parcelled plot with the concurrence of the lines in its centre and agreed upon to be 1/8th of that of the small square. In the 'Samarāṅgṇasūtradhāra', the 'sandhi' or conjection of lines has no magnitude. It is a point to be avoided when determining, the position of the middle of door openings, pillars etc.) They are avoided by shifting for example the position of the respective parts of the building, to the right of the vulnerable points. Similarly also nothing (no dravya') may be placed on the border or middle lines and the consequences are seriours too, though not fatal, if the other orthogonals and the 2 diagonals are infringed (ib. XII. 23-36). The earlier texts however limit the tender spots to the concurrences of lines: (Br.S. LII. 57; 'Viṣṇudharmottara', Pt. II. ch. XXIX. 45-46). The spots which are the most vulnerable and which must be avoided with great care, are in and around the Brahmasthāna, the centre of the square.

The connections of the Vāstupuruṣamaṇḍala and the buildirgs to be set up on it are manifold They comprise the position of temples sacred to distinct divinities; of definite buildings in definite parts of the maṇḍalas and the position of the images at their definete places. In addition to these inconographic considerations, the slight deviation of doors, pillars, etc. from a uniform and mechanical symmetry contributes, as in the forms of life, towards a fuller consonance, of the proportions of the architecture. The living breath of Vāstu-puruṣa would thus be seen to permeate the total structure".

N. B. The three charts (A. B. and C.) of the lines (sūtra) their intersections and proportionate width may be purviewed in the appendix at the end.

This organism of the plan leads to take up the most vital element of Vāstupada-Vinyāsa, the Supernal Man. The Vāstu-vidhāna (VIII 25-32) of Nārada says that the Vāstupuruṣamaṇḍala is the magic diagram (yantra) and the form (rūpa) of the Vāstupuruṣa : It is his body (śarīra) and a bodily device (śarīra-yantra) by which those who have the requisite knowledge attain the best results in temple building. It is laid out in tabular notation as man and site (naraprastara) Vāstuprastara ; ib. 29).

In the Puruṣa, Supernal man, the Supreme Principle is beheld. Beyond form and non-contingent, it is beyond description. It is know by intellectual intuition as residing in man, the microcosm, and in the universe, the macrocosm, Either is its place of manifestation. Man and Universe are equivalent in this, their indwelling centre. Of this equivalence, the Puruṣa is an image. In the Puruṣa, the relation of the Supreme Principle (Brahman) and of manifestation is seen as coterminous. The Supreme Principle in this aspect is called Puruṣa because it reposes or dwells in Integral or Supernal man as if in a city (Puruṣah =puri-śayaḥ or puri-sadaḥ ; Yāska, 'Niru I.13; II.3). The city is drawn as a yantra, a device in which is bound and situated the Supreme Principle. It is a plan of its manifestation and as such it is also the body of the Puruṣa, itself without substance. It is the site indwelt, and pervaded by the Puruṣa. Any place where this body lies down, where this plan is laid out by those who know it exemplifies the presence of the Puruṣa and is its 'bhūmi', the ground on which it rests. By its impress that piece of land, freed of all associations acts as primordial, undifferentiated substance (Prakṛti).'

The symbolism of the Vedic altar, Agni, is continued in the Hindu temple, in its plan. The Vāstupuruṣa of this maṇḍala is

indeed Agni-Prajāpati. It is drawn on the ground and not piled up. No fire burns on it; the temple is set up on it. The image of the Vāstupuruṣa coterminous and one with the maṇḍala is drawn in the likeness of man. His head lies in the East, in the maṇḍala of 64 squares, the legs opposite; body and limbs fill the square. No bricks are laid down which had been identified with the several parts of his body. The bricks were square; now squares are drawn, lines separate and connect those parts and limbs and are their joints and vital parts. These must not be hurt. The lines too (nāḍī) belong to the anatomy of the subtle body of the Vāstupuruṣa, they are channels of energy as the nerves are and the arteries in the grooss body. Their prototypes are Prāṇa and Vāyu. The spine (vaṁśa) of this Puruṣa of 64 squares, is the middle line of the plan of the temple, as it is of the altar.'

Further details like subtle body of the Puruṣa and its pictures, the descent of the Vāstupuruṣa, the nature and names of the Vāstu-puruṣa may be seen in Prof. Kramrsich's work, the Hindu Temple. A special mention may be made here and now that forty five gods are constituents of the body of the Vāstupuruṣa; they cover his extent, they are his limbs and vital parts aud their sum total is the Vāstu-puruṣa with whom it is co-extensive. Their number necessarily is the same in the Vāstupuruṣamaṇḍala of 64 or 81 or any of the other numbers of squares; only the extent allotted to each differs, but not their relative position in the plan. A detailed exposition of these gods and their significance in the architectural symbolism have been ably worked out by Kramrisch and it may be purviewed in her Hindu Temple.

This is the cosmological or metaphysical background on which the most fundamental Doctrine of Vāstu-puruṣa-maṇḍala rests and from this we can very well understand and appreciate the very advanced state of architectural planning in ancient India. Now as promised we have to say something on this canon from the stand point of implied practise, the engineering of the site plans preferably from the evidences culled from the two texts, the S. S. and the Mānasāra. Let us begin with the evidence furnished by the S.S. The S.S. devotes four chapters on it viz. Vāstu-traya-Vibhāga, Nāḍyādi-Sirādi-Vikalpa, Marma-Vedha, and Puruṣāṅgadevatānighaṇṭu and all these four chapters form one theme namely the site-plans and presiding dieties of the squares together with the conception and elaboration of the Vāstupuruṣa, the Supreme Lord of the site.

When a site is selected for constructing a village, town or building, the ground is divided into different numbers of squares. Māna-

sāra distinguishes designations, according to the number of squares into which the whole area is partitioned out. The whole scheme is arranged in such a manner that in each case the number of partitions represent the square of the serial number.

The Samarāṅgaṇa-Sūtradhāra however, describes only three such site plans, that is, of eighty-nine squares, hundred squares and sixty four squares in the first of these chapters (cf. Vāstutraya also Vāstu-Lakṣaṇa). These are really the principal site plans fit to be employed in towns and temples, the most important subjects of planning. In the next chapter however, it describes some other site plans too—of sixteen squares and of one thousand squares. Its special contribution however, is that in this chapter it describes circular plans together with three-sided, six-sided, eight-sided and sixteen-sided as well as so many extraordinary plans like Vṛttāyata, Ardhacandra etc. (ibid).

It may be noted again that each of these squares is assigned to its presiding diety—some deities however, are lords of more than one square The Lord of the Central square is always Brahmā. These presiding deities Pada-devatās are of two classes—Internal and Exteranl.

Again another important thing as elaborated in the second of these four chapters as well as in the last one, is that the presiding diety of the whole site is called Vāstu-Puruṣa. (He is described as hump-backed and of crooked shape. He is said to occupy the planned area in such a manner as to occupy the whole plot and thus the presiding deities of the squares became presiding deities of the different limbs of the body of the Vāstu-Puruṣa. All this is indicative of the metaphysical doctrine of Vāstubrahma, Ekam sad Viprāh Vahudhā Vadanti). In this connection special mention may be made of the laying of the Vāstu-puruṣa with all its limbs together with their interior components of Nāḍī, Vaṁśas, Anuvaṁśa, etc. that there should not occur any Vedha, otherwise results are effected (cf. 3rd of these 4 chapters). The advoidance of the Vedha is one of the most important points of planning in Indian architecture. A unique thing in this book is that sixteen-fold alphabets indicative of the whole body of the Vāstu-puruṣa are mentioned at the close of the Chapter.

So far these are details of non-architectural interest from the modern point of view. Architecturally these site plans are enjoined by the text to be employed in the following constructions:—

1. In the residential houses of the Brāhmaṇas and the people of

other castes together with the palaces, of the kings and temples of Indra should be employed the plan of eighty one square.

2. The different varieties of temples, pavilions, all laid out in Śatapada Vāstu.

3 The sixty four square site plan is fit to be employed in the planning of the camps of the kings, the village, kheṭas and the towns.

Apart from these 4 Chapters there is one chapter more in the S. S. which has a special importance of its. It is called Vāstusaṁsthāna-Mātṛkā—(the Secular varieties of the Vāstu-Plots).

We have already taken notice of certain site-plans (Ch. 12 to 15). This chapter on sites of the different varieties of Vāstu is unique in this respect that such varieties of Vāstu have nowhere been dealt with. The chief characteristic of these sites as would be evident from their description just below, is that they aim at the secular i. e. civil planning in contrast to the religious planning of the site plans described in chapters 12 to 15. I have already pointed out that this work on architecture is the father of secular or popular planning in India.

The forty sites with their worthy occupants are tabulated hereunder:—

	The Plots		*The Dwellers*
1.	Caturaśra	1.	King
2.	Sama	2.	Queens' Chamber
3.	Sāci or Śayyākāra	3.	Purohita
4.	Dīrgha	4.	Princess
5.	Vṛttāyata	5.	Commander
6.	Śambūkākāra	6.	Vehicles (horses & elephants).
7.	Śakaṭākṛti	7.	Vaiśyas
8.	Akṣākṛti	8.	?
9.	Bhagākāra	9.	The prostitutes,
10.	Ādarśākṛti	10.	Goldsmith. Nagaragoṣṭhika
11.	Kanthākṛti	11.	?
12.	Chnniakarṇa	12.	Mahāmātyas
13.	Vikarṇa	13.	Hunters
14.	Śaṅkhābha	14.	One-eyed persons.
15.	Kṣurasannibha	15.	Gaṇācārya
16.	Śaktyānana	16.	Vrajādhyakṣa
17.	Kūrmapṛṣṭha	17.	Mālikas
18.	Sadaṁśākṛti	18.	Tailors

	The Plots		*The Dwellers*
19.	Vyajanākṛti	19.	Horsemen
20.	Śarāvākṛti	20.	Carpenters—Takṣakas
21.	Śaṅkha-saṁsthāna	21.	—
22.	Svastikākāra	22.	Bards, Vandīs & Māgadhas,
23.	Mṛdaṅgopama Paṇavopama	23.	Players on Veṇu and Tūrya—musical instruments.
24.	Viśarkara	24.	Charioteers
25.	Kabandhābha	25.	Nīcas and Śvapākas—the outcastes
26.	Yava-madhyasamākṛti	26.	Dhānya-jīvīs
27.	Utsaṅgābha	27.	Śramaṇas
28.	Gajadantābha	28.	Mahāvatas (Elephent's riders)
29.	Paraśusannibha	29.	Captives
30.	Viśrāvita	30.	Vine-makers
31.	Śvabhra	31.	Labourers
32.	Pralamba or yugala	32.	Barbers
33.	Vivāhika	33.	Cashiers
34.	Trikuṣṭa	34.	Vahnijīvīs
35.	Pañcakuṣṭa	35.	,,
36.	Paricchinna	36.	Mānopajīvīs
37.	Diksvastikābha	37.	Caityāni
38.	Śrīvṛkṣa	38.	Trees (Sacrificial)
39.	Vardhamānasamānana	39.	Ditto
40.	Eṇīpada	40.	Gaṇikās
41.	Narapada	41.	Thieves

It is the tradition that practically all the manuals on the science of architecture have devoted some chapters to this time-honoured tradition of Vāstu—its different categories, its presiding deity, the Puruṣa, its different gods inhabiting the different directions, corners centres and so on, and their worship and other propitiatory performances.

After the survey of the Region and the selection of the site, the first thing for a town-planner is to plan out the roads and streets lanes and by-lanes together with the orientation of the place so as to make it a fit place for human habitation with ease and comforts, health and longivity, peace and prosperity. Laying out the roads and streets is inter-connected with the plotting out of the whole area. There are fixed rules as to how a piece of land under planning should be plotted out. These rules are what we understand by the term, 'Padavinyāsa'. The S. S. prescribes the arrangement of the Vāstu-pada-vinyāsa as the preliminary to all the building activities. This subject is also treated in the earlier works.

When a site is selected for constructing a village, town or building the ground is divided into a number of squares. As already stated the Mānasāra (chapter VII) distinguishes thirty two kinds of such schemes by as many different designations, according to the number of squares into which the whole area is partitioned out. The whole scheme is arranged in such a manner that in each case the number of partitions represents the square of the serial number'.

The evidence in the S. S. is presented in Chapters 11 to 14 and 38 (vide tabulation—Re-arrangement of the S. S, pp. 14-18).

Thus the S. S. devotes five full chapters—11 to 14 and 38th Chapter. While the first four chapters are traditional in nature with one innovation, namely, that it has added an interesting account of sixteen-fold alphabetical symbol sm technically called Nighaṇṭu representing the different limbs of the body of the Vāstu-Puruṣa—the Presiding Lord of the Site. The 38th Chapter entitled "Vāstu-Saṁsthāna-Mātṛkā", however, is a novel departure from the tradition as here we find the conception of the secular sites and they number as many as forty and their scheme of plotting etc. is not based on the theological or religious considerations (the deities etc.) but purely on physical ones. This is also one of the side developments of the science of architecture towards the civil or secular planning—a definite landmark in this connection is seen in the plans of the Śālā houses (vide Part III, House Architecture, where this point is developed).

It suffices here to say that the S. S. has described only three of the traditional site-plans, that is of eighty-one squares, one hundred squares and sixty four squares (vide Vāstu-traya-Vibhāga, the 11th chapter). These are really the principal site-plans most commonly accepted and fit to be employed in towns and temples. Its special contribution in this scheme is that it describes (vide 12th Chapter) circular, semi-circular, triangular, hexagonal, octagonal and sixteen-sided site-plans, also. The principal topics, in all these schemes, are the allotment of the different plots to the different deities, the laying out of the Vāstu-Puruṣa and the folk-planning, that is allotment of the different plots for the residences of the different people belonging to different castes and professions.

Site Plans.

Let us now take the notice of a typical site-plan, one of the principle site-plans (cf. 81 squares) in a bit detail:

The Plot of 81 Squares (Ekāśīti-pada-vāstu).

This, as already indicated, consists of eighty one divisions of the plot of the land—a site earmarked for the building as shown on the chart appended. Each of these divisions is called a *Pada* and has a presiding deity associated with it. The arrangement is shown in the chart.

In this connection it should be noted that the Pada-vinyāsa is a very convenient method more or less like a modern graph divided into uniform squares for the purpose of making a plan according to proportionate measurements e.g. when it is said that the centre of the building should be located on the *Brāhma-Pada* or *Brahma-Sthāna*, it means in simple language that particular portion of the land comprising the central nine squares (Nava-pada Ch II.I) is to be built upon. Similarly, the whole site-plan becomes so clear with reference to each square named after that particular deity. By this device, the Indian writers are able to refer theoretically to any particular spot of the site in the four cardinal and four intermediate directions within the bounds of the site in the most convenient manner. The S. S. uses, in this connection some significant terminology e. g. *Padika* or *Pada-Bhuja* which refers to the deity of one square; *Dvipadika* or *dvipadādhīśa* to the presiding deity of two squares, *Saṭpada* to a deity of six squares.

There are mainly two broad divisions of these deities, namely the internal deities (*Antaḥ-samśrayāḥ-Devāḥ* Ch. II. 6) and the external ones (*Vahisthāḥ Devaḥ*—ibid).

The Internal Deities.

A.	*Central Lord*	1.	*Brahmā*	Navapadika.....................9
B.	*Those Adjoining the Centres*	2.	Aryamā (East)	Each of these (2 to 5) occupy 6 Padas-Saḍbhuja and thus they occupy.....................24
		3.	Vivaśvān (South)	
		4.	Mitra (West)	
		5.	Pṛthvīdhara (North)	
C.	*Pada-Koṇaṣṭha* (of the central corners).	6.	Savitṛ	*N.B.*—Each of these are allotted to only one Pada according to the S. S. The other texts however, make them the lords of two Padas.....................8
		7.	Sāvitra	
		8.	Jaya	
		9.	Indra	
		10.	Yakṣmā	
		11.	Rudra	
		12.	Āpa	
		13.	Āpavatsa.	

The External Deities.

Thirty two deities are assigned to the outer-most boundary of this Site-plan, eight of whom have the double share being external and internal both, the rest i.e. 24 deities occupy each a single plot. The Dvipadādhīśa (lords of the two squares) are marked with a flower as tabulated under:—

14. Agni	22. Anila	30. Pitṛgaṇa	38. Roga
15. Parjanya	23. Pūṣā	31. Dauvārika	39. Nāga
*16. Jayanta	*24. Vitatha	*32. Sugrīva	*40. Mukhya
17. Indra	25. Gṛhakṣata	33. Puṣpadanta	41. Bhallāṭa
18. Ravi	26. Yama	34. Varuṇa	42. Soma
19. Satya	27. Gandharva	35. Asura	43. Caraka
*20. Bhṛśa	*28. Bhṛṅgarāja	*36. Śoṣa	*44. Aditi
21. Nabha	29. Mṛga	37. Pāpayakṣmā	45. Diti.

Thus in all these deities are 45 =48

and the plots are:— 81

It is called Paramaśāyika Plan, and the S. S. prescribes (Ch. 13.3) its employment in the residential houses of the four castes as well as the palaces of the kings and the temple of Indra. Indra being the symbol of Indian Royalty, is also dedicated akin to kings to this plot of 81 squares, otherwise the different temples for the enshrinement of the different deities are said (13.4) to be constructed on the site-plan of 100 squares—*Śata-pada-Vāstu*—appended in the end. The site-plan of 100 squares holds good also in the planning of the Maṇḍapas, pavilions, attached or detached to the central shrine—the Prāsāda.

For the planning of the towns and their other categories like Kheṭa and Grāma as well as for the planning of the royal camps (Narendra-śibira), the site plan of sixty four squares is recomended (S. S. Ch. 13-5). The Mānasāra (ibid) calls it 'Caṇḍita'. It comprises within it the sixty-four squares, as per the diagrametic representation appended in the end.

Now after these principal plans have been taken into consideration, another important notice is the formation of the Vāstu-Puruṣa, the first discipline to be mastered by an expert Sthapati (vide the eight-fold Architecture, the 45th Chapter). The V. P. is the presiding Lord of the whole plot. He is described as hump-backed and of crooked shape. He is said to occupy the planned area in such a manner as to occupy the whole plot and thus the presiding deities of

the Squares become presiding deities of the different limbs of the body of the Vāstu-Puruṣa. In this connection special mention may be made of the laying of the Vāstu-puruṣa with all its limbs together with their interior components of Nāḍī, Vaṁśa, Anuvaṁśa, Marma, etc. that there should not occur any Vedha, otherwise the adverse results are effected (cf. 3rd of these 4 chapters i. e. S. S. 13th). The avoidence of the Vedha is one of the most important points of planning in Indian Architecture. A unique thing in this book is that sixteenfold alphabets indicative of the whole body of Vāstu-puruṣa are mentioned at the close of the Chapter.

Again it may be pointed out that the S. S. is the only work in the extant Vāstu-śāstra works that gives the Nighaṇṭu of the Pada-devatās, appended herewith.

Further again most of these Pada-devatās stand for their connection with solar system and the atmospheric regions. The scientists have discovered the manifold segments of the Solar light. P. A. Mankad, in his Introduction to Aparājita-pṛcchā has very ably worked out this symbolism of these Pada-devatās to the afore said solar system and atmospheric regions (XIII-XX). The theory of Orientation of Structures is nothing but the practical application of the Vāstu-pada-vinyāsa, and we have already seen its implication in the preceeding section—Diṅnirṇaya. Some more observations of the learned editor of the Aparājita-pṛcchā need be reproduced to bring the fuller significance of this Hindu tradition in architecture and also to popularize Sri Mankad's theory which be has so lucidly expounded:

"Within a couple of centuries European scientists have discovered that the Solar light (white) could be split up under suitable conditions into three segments; first, a visible spectrum of coloured rays ranging from the deepest blue to red with their wave lengths varying from 3900 to 7700 Angstroem Units. This visible spectrum is flanked on each side by two invisible zones known as ultra-violet and infra-red. The ultra violet segment comprises that part of the spectrum with wave lengths approximately between 136 and 3900 A Units, and is next to the violet zone; while the infra-red segment has wave lengths varying between 7700 and 4000000 A Units, and is next to the red of the visible spectrum. The invisible spectrum on the violet end is called the actinic or chemical spectrum.

Cosmic rays	·003	to ·006 A. U.
Gamma rays	·02	to ·01 A. U.
Rontgen rays	·01	to 5 A. U.
and Uultra Violet	200	to 3900 A. U. form this region.

The invisible region on the red end is called the thermic or heat spectrum. This section is divided into 3 sub-regions according to the views of Luckiesh, while Saidman divides it into 9 octaves out of which the first 3 are used in therapeutics. As far as the promulgation of the principles of Indian Vāstuśāstra in old Vedic times is concerned we have to look to Aryan Brāhmaṇas of over 40 centuries who were divided into two distinct camps. One was purely orthodox and was headed by Atri and his colleagues, while the other belonged to the reformists' school and was headed by Bhṛgu and his colleagues. The latter school, it appears, has brought about a fusion of some of the Dravidian elements into the principles which were purely Aryan. The mythological disquisition regarding the origin of Vāstupadadevatā is not touched here. Only the location and the intensity of influence of the deities involved are discussed. It may be added in this connection that Indian Vāstuśāstra takes cognizance of as many as 45, perhaps 49 or 53 deities. These are shown in the chart attached hereto.

The Indian sages who promulgated this theory were not equipped with the present day appliances of the Western Science such as Newton's Colour card, Solarium with a spectroscope, Quartz lamp, Rheostat, and other appliances, or the remarkable instrument the Spectroheliograph which was invented by Professor Hale in America and M. Deslandres in Paris and which enables one to get pictures of the hydrogen Sun, the calcium Sun or the iron Sun, portraying only those formations upon it that were composed of the particular vapours selected and which could further photograph the Sun's atmosphere at various levels etc.—and yet they were able to discern many natural phenomena in a marvellous manner. They had no equipped laboratory except nature and all the same they could distinguish between primary, secondary and tertiary colours. They had the knowledge of the decomposition of Solar white light into the visible spectral regions. Their discoveries did not end there.

The visible spectrum had distinctive names with specific functions; the present day science has the seven divisions which are distinguished by colours only. Western Science has no parallel with the changes which these seven rays undergo during the diurnal motion of the Sun at its several periods as detailed atlength below. Scholars have tried to interpret the Vedic gods from various viewpoints, but they have been found conflicting in a variety of ways. I am, on my part led to approach the subject from a different angle altogether. Vāstuśāstra has reference to Vāstudevatāpadavinyāsa i.e. the disposition or apportionment of (padas) divisions in the general plan allotted to different

deities. This Vāstupadavinyāsa, it may be observed, forms a fundamental principle for the design of various structures adminstrating to the needs of men of a variety of grades.

In order to bring home to readers this view point, I append a chart of the deities who direct and control the animate and inanimate world. The North-east corner of the chart starts with ई which stand for ईशान which corresponds to the ultra-violet segment of the Solar spectrum. Its rūpa (the mystical occult form) has the following attributes: (1) नीलकण्ठ, (2) त्रिनयन (3) सहस्राक्ष, (4) वज्रदंष्ट्र, (5) अत्युग्र (6) अतीन्द्रिय, (7) सूक्ष्म, (8) अनन्य, (9) शशिशेखर, (10) गङ्गाधर, (11) ज्वलत्त्रिशूल, (12) गण्डमाल, (13) नागेन्द्रहार, (14) नागेन्द्रवलय (15) शङ्कर etc.

If these characteristic are rationally studied a host of properties and phenomena would be revealed. A chart showing the appointment of padas assigned to various deities in general plan of structures as worked out by Mankad is appended (in the Appendix No. A.).

Similarly, the South-east comer of the chart represents अ which stands for Agni and corresponds to the infro-red segment of the solar spectrum. If the rūpa of Agni as known to Indian savants is minutely studied it would be a real revelation to Western scientists, as it is calculated to unfold a variety of mysterious scientific problems:

सप्तहस्तश्चतुः शृङ्गः सप्तजिह्वो द्विशीर्षकः ।
त्रिपात् प्रसन्नवदनः सुखासीनः शुचिस्मितः
स्वाहां तु दक्षिणे पार्श्वे देवीं वामे स्वधां तथा
बिभ्रद् दक्षिणहस्तैस्तु शक्तिमन्नं स्रुचं स्रुवं
तोमरं व्यजनं वामैर्घृतपात्रं च धारयन्
आत्माभिमुखमासीन एवं रूपो हुताशनः
कराली धूमिनी श्वेता लोहिता नीललोहिता ।
सुवर्णा पद्मरागा इति विभावसोः सप्तजिह्वानामानि
पीता श्वेता अरुणा कृष्णा धूम्रा तीक्ष्णा स्फुलिङ्गिनी
ज्वलिनी ज्वालिनी इति कृशानोर्नवशक्तयः ।

Now to the portion corresponding to the visible spectrum of the Solar white light. Jayanta, Parjanya Mahendra......to Bhṛśa and Ākāśa these seven correspond to the VIBGYOR, (Westen Science). It may be added that the Western Scientists have as yet no specific names except the colours; while Jayanta, Parjanya etc. signify by themselves certain distinguishing properties besides the colour of the visible spectrum.

In Western Science the visible spectrum of Solar white light consists of seven colours—VIBGYOR, as stated above. According to Indian Vāstuśāstra the Vedic deities corresponding (in number only)

to these are Parjanya, Kaśyapa, Mahendra, Sūrya, Satya, Bhṛśa and Nabhas. Their characteristic functions are described seperately. They have reference to the radiant energy of the Sun. The seven horses of Sūrya are represented by these deities. Indian sages have further seven more Aśvas from a phonetic or acoustic consideration. They are : Gāyatrī (six) Uṣṇik (seven), Anuṣṭup (eight) Bṛhatī (nine) Paṅkti (ten), Triṣṭup (eleven) and Jagatī (twelve) meters with 6, 7, 8, 9, 10, 11 and 12 syllables in a quarter: सप्तच्छन्दांसि गायत्र्युष्णिगनुष्टुब्बृहती-पङ्क्ति त्रिष्टुब्जगत्यो ऽश्वाः युक्तः ।

—सूर्य सिद्धान्त

Here as one proceeds from Gāyatrī to Jagatī the number of syllables go on increasing just as the wave lengths of VIBGYOR go on increasing from V to R. These seven horses of Chandas would be explained in terms of phonetics later on. Agnipurāṇa's 93rd Adhyāya prescribes as many as 12 Marmas (vital parts) in a Vāstu (site of buildings); they are as under:—

(1) महामर्म, (2) अनुज, (3) हल, (4) त्रिशूल, (5) स्वस्तिकं, (6) वज्रं, (7) महास्वस्तिक, (8) सम्पुट, (9) त्रिकट, (10) मणि बंध, (11) सुविशुद्ध and (12) पद (!):

These Marmas in a Vāstu (ground plan of buildings) indicate that the places marked therein should not be built upon. They go to determine that not only a certain percentage in the plan should remain unbuilt upon, but they show where the open spaces should have their location, in the general scheme of the plan. Further the theory of orientation of structures is nothing but the *practical* application of the general principle of Vāstudevatāpadavinyāsa. The study of the latter principle will thus makes the theory of orientation of buildings more clear. ब्राह्ममुहूर्त, उषा; अरुण प्रातः संगवं; मध्यान्ह etc. are technical terms refering to the diurnal course of the Sun, long before its rise on the horizon in the east to Sunset in the West.

When the Sun appears on the horizon in the morning (प्रातःकाल) he is accompanied by seven deities (including himself). What are described as seven steeds are nothing but seven rays—सप्तहरितः। हरित् from हृ to take away, extract. (Vide Nighaṇṭu of Yāska). Pandit Ganga Prashad M.A , M R.A.S , Retired Chief Judge Tehri State has discussed this question of steeds at some length in his सूर्यसप्ताश्ववर्णन (1.50,8,9.). As the Sun has risen above the horizon and advanced a few degrees in in its onward march towards the meridian i e. in the सङ्गव the functional duties of the seven deities have come to an end and they have to retire in favour of five (?) or three deities among whom अर्यमन् occupies the presidential chair. The portfolios of the seven deities of the

प्रातःकाल are reshuffled among the new members of the सङ्गवकाल—अर्यमन् with Āpa and Āpavatsa on the North and Savitṛ and Sāvitra on the South The Sun's further course towards the meridian terminates the duties of Aryaman and his colleagues and Brahmā steps in to direct and control the heavens in the मध्याह्न It is not to be supposed that several other deities on the Southern and Northern sides as shown on the chart are not functioning at all, all the while. The Sun being the central figure during the day is the sovereign lord domineering over all other deities.

The reverse process takes place during the अपराह्ण course of the Sun. Brahmā then hands over his charge to three or five (?) deities of the अपराह्ण namely Mitra and his colleagues Rudra, Rudradāsa on the North and Indra and Indrajaya on the South. The distintive functional effects of these luminous bodies are different from those of Ayarman and his colleagues though light and heat aspects remain unaffected. It is only in the सायाह्न course of the Sun that these five deities retire in favour of seven ones wherein Varuṇa occupies the place which Sūrya had to do in the morning. Varuṇa thus is a ray aspect of the Sun. The functions of the deities of the evening are different from those of the morning members. Indra in the morning has Asura as his evening counterpart, so also Jayanta and Parjanya have Soṣa (Śaturn) and Pāpayakṣmā and so on for the right hand colleagues of Varuṇa. It will be apparent that the functions of the evening deities are evidenely not the same as those of the morning ones. The reason is evident. As the Sun advances from sunrise to midday, his course in the first quadrant is marked by gradually increasing temperature and decreasing atmospheric humidity. In the same way his career from the meridian towards the horizon on the West or his progress in the second quadrant is characterized by diminishing temperature combined with increasing humidity. The function of the luminaries under such opposing influences can never be one and the same.

Wilkins (Hindu Mythology) says that in the Vedic literature Varuṇa was not represented chiefly as the god of the ocean; rather Vedic hymns show him as one of the gods of light. This interpretation quite fits in the reading of the chart, as Varuṇa in the evening is the same as Sūrya in the morning. Varuna from bṛ to cover, to encompass means, atmosphere or the deity presiding over the atmosphere. This atmosphere is, thanks to the discoveries of Astral physics during the last fifty years, divided into several spheres on account of their varying physical characteristics. These divisions of the aerial envelope are roughly Troposphere, Tropopouse, Stratosphere, Ozonosphere,

Etherosphere etc.; but several centuries before this discovery, the atmosphere over which Varuṇa held its sway was divided into भू:, भुव: स्वर्, जन, तप and सत्यलोक and the distintive colours which they presented are summed up in the idea of सप्तमात्रिका, सूत्र 5 of Aparājita-pṛcchā. The rays, which each of the so called atmosphere is capable of emitting, assume the following colours in order: (1) काञ्चनसम (2) स्फाटिकनिर्मल (3) इन्द्रनील (4) वैडूर्य (5) पद्मराग (6) वज्रक and (7) सर्वरत्नाढ्य with ब्रह्मतेज: on the top.

The abbreviation in the chart represent the intial letter of the Vedic deities as under:—

1. The deities on the Eastern periphery are

   Name (1) ईश (2) पर्जन्य (3) जयन्त (4) इन्द्र (5) सूर्य (6) सत्य (7) भृश (8) आकाश (9) अग्नि

2. Deities on the Southern periphery—

Names	पूषा	वितथ	गृहत्वत	यम	गन्धर्व	भृङ्गराज	मृग
	10	11	12	13	14	15	16

3. Deities on the Western periphery—

Names	पितर्	नन्दि	सुग्रीव	पुष्पदन्त	वरुण	असुर	शोष	पापयक्ष्मा (४)	रोग
	17	18	19	20	21	22	23	24	25

4. Deities on the Northern periphery—

Names	नाग	मुख्य	भल्लाट	कुबेर (५)	शैल (६)	अदिति	दिति (७)
	26	27	28	29	30	31	32

5. Internal deities—

Names	आप	आपवत्स	अर्यमा	सावित्र	सवितृ	पृथ्वीधर	ब्रह्मा	वैवस्वत्
	33	34	85	36	37	38	39	40
	रुद्र	रुद्रदास	मैत्रगण	इन्द्र	इन्द्रजय			
	41	42	43	44	45			

They are 45 in all.

The thesis as propounded and presented by Mankad is corroborated by the Nighaṇṭus of the Vāstu-pada-devatas in the S. S. and it is tabulated here under:

The Nighaṇṭus.

1.	Brahmā	Abjasambhava Sahasrānana Acintyavibhava
2.	Vahni	Sarvabhūtahara, Hara
3.	Parjanya	Vṛṣtimān, Ambudādhipa
4.	Jayanta	Kāśyapabhagavān

5.	Mahendra	Surādhīśa, the Subduer of the Danujas, the demons
6.	Vivasvān	Ahaskara
7.	Satya	Bhūtahita, Dharma
8.	Bhṛṣa	Kāma, Manmatha
9.	Antarikṣa	Nabhas
10.	Maruts	Vāyu
11.	Pūṣan	Mātṛgaṇa
12.	Vitatha	Adharma, Kalerapratimah Sutah—(the extra-ordinary son of Kali).
13.	Gṛhakṣata	Budha, the son of Moon.
14.	Yama	Vivasvān, the Lord of the Departed ones (Pretas)
15.	Gandharva	Nārada
16.	Bhṛṅgarāja	Son of Nirṛti
17.	Mṛga	Ananta, Svayambhū, Dharma
18.	Pitṛs	The deities residing in the Pitṛloka
19.	Dauvārika	Nandī, the lord of the Pramathas
20.	Sugrīva	Primordial Prajāpati, Manu
21.	Puṣpadanta	Son of Vinatā, Mahājava
22.	Varuṇa	Lord of waters and a guardian of quarters
23.	Asura	Rāhu, the son of Siṁhikā, the suppresser of Sun and Moon.
24.	Śoṣa	The son of Sun, Śanaiścara
25.	Pāpayakṣmā	Kṣaya
26.	Roga	Jvara—the fever
27.	Nāga	Vāsukī
28.	Mukhya	Tvaṣṭā, Viśvakarmā
29.	Bhallāṭa	Candra
30.	Soma	Kubera
31.	Caraka	Vyavasāya
32.	Aditi	Srī
33.	Diti	?
34.	Śūlabhṛt	Vṛṣabhadhvaja
35.	Apa	Himavān
36.	Āpavatsa	Umā
37.	Aryamā	Āditya
38.	Sāvitra	Vedamātā
39.	Savitṛ	Devī Gaṅgā
40.	Vivaśvān	Mṛtyu, Śarīrahartā
41.	Jayābhidha	Vajrī
42.	Indra	Balavān Hari
43.	Mitra	Haladhara, Mālī

44.	Rudra	Maheśvara
45.	Rājayakṣmā	Guha
46.	Kṣitidhara	Ananta
47.	Carakī Vidārī Pūtanā, Pāparākṣasī.	'Rakṣoyoni-bhavā Devatānucaryah' born of Rākṣas, these are maids of gods.

As regards the evidence furnished by other texts notably the Mānasāra, the Mayamata, the Śilparatna and the Aparājitapracchā, the details may be avoided. Some particular notices, however, demand our attention. The thirty two types of Vāstupadas as prescribed by the Mānasāra are tabulated as here under for an interesting reading :

	Names of Padas.	*Nos. of Plots*		*Names of Padas.*	*Nos. of Plots*
1.	Sakala	1	17.	Triyuta	289
2.	Paiśāca	4	18.	Karṇāṣṭaka	324
3.	Pītha	9	19.	Gaṇita	379
4.	Mahāpīṭha	16	20.	Sūrya-viśālaka	400
5.	Upa-pīṭha	25	21.	Susaṁhita	451
6.	Ugra-pīṭha	36	22.	Supratikānta	484
7.	Sthaṇḍila	49	23.	Viśālaka	529
8.	Caṇḍita	64	24.	Vipra-garbha	576
9.	Paramaśāyika	81	25.	Viśveṣa	625
10.	Āsana	100	26.	Vipula	676
11.	Sthānīya	121	27.	Vipra-kānta	729
12.	?	144	28.	Viśālākṣa	784
13.	Ubhaya-caṇḍita	169	29	Vipra-bhakti	841
14.	Bhadra	196	30.	Viśveśa-sāra	900
15.	Mahāsana	225	31.	Iśvarakānta	961
16.	Padmagarbha	276	32.	Candrakānta	1024

Similar prescriptions abound in all other Southern texts. The Aparājitapracchā, however, has some innovation both in the genesis of the Vāstu and its terminology of the different types of the Padas. In the former the interesting details (cf. A. P. Sutrās : 53-55) are the origin of the Vastu from 'Devāsurasaṅgrāma' as well as from the Dialogue between Maheśvara and Śukra and its constituents 16 sandhis, 8 limbs, 16 sutras and 5 kṣetras are beautifully summarized:

द्व्यष्टसन्धि तथाष्टाङ्गं द्व्यष्टसूत्रं तथैव च।
पञ्चक्षेत्रमिदं वास्तु स्वरूपं पुरुषाकृति ॥

And in which the aṅgas, the limbs are elaborated as followes :

वास्तूत्पत्तिः पूर्वमङ्गं यज्ञोत्पत्तिः द्वितीयकम् ।
चतुर्थकं तथा सूत्रं तृतीयं भूपरिग्रहः ॥
पञ्चमं वेश्माधिकारः षष्ठं च सुरसद्मकम् ।
सप्तमं लिङ्गमूर्त्याद्यं प्रतिष्ठाविधिरष्टमम् ॥

Now the terminology of the Vāstupadas is tabulated as here under :

	Name	*Plots*	*Service*
1.	Svastika	1	Catuski—the vedi etc.
2.	Puṣpaka	4	Marriage etc. and the ceremonials
3.	Nanda	9	Entry into the forests etc.
4.	Soḍaśākṣa	16	Pavilions and jagatīs
5.	Kulatilaka	25	Worshipful initiations
6.	Subhadra	36	Auspicious operations and actions
7.	Marīci-gaṇa	49	All jīrṇoddhāras
8.	Bhadraka	64	Hemlets, villages, towns and capitals
9.	Kāmada	81	Residential houses
10.	Bhadra and	100	Temples and pavillions and palaces
11.	Sarvatobhadra	1000	Other extraordinary temple structures like Meru etc.

These in the terminology of A. P. are the Vāstu-sthānānī. It has some further innovations to make. It recognises six-fold Vāstu-kṣetras akin to what we have noticed in the evidence furnished by the S. S., the vṛtta ; vṛttāyata etc. etc.; Vāstu-padas. In A.P. (cf. Sutra 57·18-25) they are termed as Caturaśra, Āyata, Vṛtta, Vṛttāyata, Aṣṭāśra and Ardhacandra. It further enjoins their application. The square, Caturaśra kṣetra is fit for temples, towns and residences. For vāpīs and wells the Vṛtta is suitable and the tanks and the like are to be dug on the ardhacandra.

III—MĀNA (HASTALAKṢAṆA)

The third fundamental canon of Hindu architecture is Māna, the proportionate measurements. Vimāna is measured out Creation. Mūrtis are what when they are correctly and proportionately measured out—"प्रमाणे स्थापिता देवाः पूजार्हाश्च भवन्ति ते". Thus adherance to the measurements is imperative in all creative activities whether it is architecture or sculpture. Unless a building is proportionately and perfectly measured out, it can not give an auspicious result. Mayamata says : मानं धाम्नस्तु सम्पूर्णं जगत्सम्पूर्णता भवेत्—If the measurement of the Temple is in every way perfect, there will be

perfection in the universe as well. The S. S. has also to contribute its own to this thesis. According to it any creative activity—architectural or aculptural—must be 'Meya' 'complete in measures' 'यच्च चेन मत्रेद् द्रव्यं मेयं तद्दि कथ्यये'. Our iconographic traditions are so strict that howsoever a beautiful image is carved out, but if it lacks the correct proportions of measurements, it is deemed defective and unworthy of possession. That is why it has been procialmed by Āchāryas of the Science,—'शास्त्रमानेन यो रम्यो स रम्यो नान्य एव हि". Strict adherence to Measure or Māna has a fundamental metaphysical implication. Prof. Kramresch rightly echoes that implication in her Hindu Temple p. 43 (cf. also foot-notes): 'Measure implies limits and limits mean end and death. It is by man's own mortal frame that this knowledge of the universe is confirmed. The square, form of finality, is at the same time that of the pairs of opposites, manifestation is only through the pairs contraries. The square throne of divinity rests on the following pairs of contraries: Order and its negation (dharma and adharma); knowledge and ignorance (jñāna and ajñāna), dispassion and its opposite (vairāgy and avairāgya), and sovereignty and its negation (aiśvarya and anaiśvarya). The positive values support the throne, as its legs, in the corners, in the intermediate directions. Their negations are situated at the shafts, in the cardinal directions (cf. Isana. Pt III ch XIII. 25) and in their balance lies the perfection of the square. Its proportion embodies, and thus resolves, the finality of limitation into a symbol of perfection. Proportion and balance are the form of the subtle (sūkṣma) nature of the square, their residue is the order which belongs to the city of the Dharmarāja, who is Death and a son of the Sun. (Similarly, the finality of architectural form houses, the life of man and is a seat of living God.) The other son is Manu, the prototype of man who gives its law to each cycle of existene."

It may be recalled that the adherences to Māna is as old as architecture. Brahmāṇḍa-Puraṇā (Chap. VII) gives a very apt origin of Māna, of which Aṅgula or Hasta is the standard of measurement (to be fully kept alive in the Vāstu or Śilpa texts—vide their expatiations on Measure under the caption 'Hastakakṣaṇa'). It is stated in the Purāṇa that people at first used to live in caves, mountains, rivers, etc. They began to build houses in order to protect themselves from cold and heat (śītoṣṇa-vāraṇāta). Then they built kheṭas (towns), puras (houses), grāmas (villages) and nagaras (cities). And to measure their length, breadth, and the intermediate distance between two settlements (sanniveśa) the people instinctively (yathā-jñānam) employed their own fingers. Thence forward the aṅgulas are used as standards of measurement.

The ancient sacred literature like Brāhmaṇas and Sūtras also corroborate this antiquity of the aṅgula or hasta measure as the standard of measurem nt. Thus Prādeśa frequently occurs in the Brāhmaṇas (Ait. VIII. 5; Śatapatha, 111, 5, 4, 5 etc.) as a measure of length, a span. Śūlba sūtra of Baudhyana does use a technical unit of Aratni, but explains it in terms of aṅgulas: Aratni is equal to 24 aṅgulas. We shall see more on aṅgula later, let us first introduce this subject in regard to its more important elements.

The word Māna has a twofold connotation. It is general designation of Measurement as such; but more technically it is height as measurement from the foot to the top of the head (whether it is a building or an image) which is in fact nothing but height. Accordingly the line or measurement is devided in the following six kinds:

1. Māna, (also called Ayāma, Āyata, Dīrgha); 2. Pramāṇa; 3. Parimāṇa (also called Vistāra, Tāra, Striti, Vistriti, Vistrita, Vyāsa, Visārita, Tata, Viṣkamba, Viśāla); 4. Lamba-māna (Sūtra, unmita); 5. Unmāna (Bahala, Ghana, Miti, Uchchhrāya, Tuṅga, Unnata, Udaya, Utsedha, Ucca, Nīṣkrama, Niṣkṛti, Nirgama, Nirgati, Udgama) and 6. Upamāna (Nīvra, Vivara, Antara).

We have already seen the meaning of māna under Māna. Pramāṇa is the measurement of breadth (Vistrita). Parimāṇa is the measurement of width or circumference (paritah). Lamba-māna is the measurement along the plumb lines or the lines drawn perpendicularly through different parts of the body, Māna, or the measurement of height being determined by the surface of the body. Unmāna is the measurement of thickness (nimna) or diameter. And Upamāna is the measurement of interspace (antara), such as the distance between the two feet of an image; this measurement is apparently taken from one plumb line to another. These terms are more sculptural than architectural.

There is yet another system called Ādimāna primary measurement, which is but the comparative measuement and chiefly useful in sculpture and iconography. It is also divided and subdivided in nine kinds—vide Encyllopadia of Hindu architecture p. 418-19. Similarly as aṅgula was the chief measure in Architecture, so Tāla in Sculpture. The details of the Tālamāna may not be reproduced here (cf. my Vāstuśāstra Vol. 11). Like Tālamāna in sculpture, it is called Gaṇyamāna in architecture which is the comparative height of the component members of an architectural structure.

Five proportions of the height, as compared with the breadth of an architectural object, are given under technical terms, namely, Śāntika, Pauṣṭika, Jayada, Sārva-kāmika or Dhanada, and Adbhuta'. These terms are very interesting from the stand-point of their implied aesthecity or durability of the building. Dr. Acharya says: 'The t chnical names of the proportions of the height are significant. The first one is called 'śāntika' or peaceful. In this proportion the height is equal to the breadth (M., XXXV line 22); and this is aesthetically a graceful proportion. The second one is called 'Pauṣṭika' which might be rendered as strong, eminent, rich, complete, or perfect. In this proprotion the height is 1¼ of the breadth (ibid., line 22); and this would give the building good stability. The third one is called 'Jayada' or joy-giving. In this proporation the heigh is 1½ of the breadth (ibid , line 22), and this gives a pleasant appearance to the building. The fourth one has two names, 'sarva-kāmika, or good in every way, and 'dhanada' or wealth-giving. In this proportion the height is 1¾ of the breadth (ibid., line 23)' and according to the literal meaning of the term 'sārvakāmika' this would make the building strong as well as beautiful. The fifth or last one is called 'adbhuta' or marvellous. In this proportion the height is twice the breadth (ibid,, line 22); and this would givea wonderful loftiness and gorgeous look to the building."

With this general introduction let us treat this subject in more details from the evidences of the principal texts like the Mānasāra and the Samarāṅgaṇasūtradhāra. Let us first begin with that culled from the Mānasāra.

Aṅgula, the standard of measurement, is a measure of about three-fouths of an inch as the hasta may be taken for easy computation at exactly 18 inches which gives ¾ inch as the value of the aṅgula. Three kinds of aṅgulas are: Uttama, the longest, madhyama, the intermediate and kaniṣṭha, the smallest, and the Suprabhedāgama has an interesting list of synonyms of number of aṅgulas and the following tabulation from Acharya,s Encyclopaedia may be purviewed:

One aṅgula is called bindu, mokṣa.

Two	aṅgulas	are	called	kalā (elsewhere it is the name of one aṅgula), kolaka, padma, akṣi, aśvinī.
Three	,,	,,	,,	rudrākṣi, agni, guṇa, śūla (and) Vidyā.
Four	,,	,,	,,	yoga (and) bhāga, Veda, and turīya.

Five	,,	,,	,,	rudrānana, indriya, bhūta, and vāṇa.
Six	,,	,,	,,	karman, aṅga, ayana, and rasa.
Seven	,,	,,	,,	pātāla, muni, dhātu and abdhi.
Eight	,,	,,	,,	vasu, lokeśa, and mūrti.
Nine	,,	,,	,,	dvāra, sūtra, graha, and śakti.
Ten	,,	,,	,,	dik, nāḍī, āyudha, and prādurbhāva.
Twenty	,,	,,	,,	trishu (and) vishku.
Thirty	,,	,,	,,	gati.
Forty	,,	,,	,,	trijagat (?)
Fifty	,,	,,	,,	śakvarī.
Sixty	,,	,,	,,	atiśakvarī.
Seventy	,,	,,	,,	yaṣṭī.
Eighty	,,	,,	,,	atyaṣṭi.
Ninety	,,	,,	,,	dhṛti.
Hundred	,,	,,	,,	atidhṛti.

Hasta, the bigger standard is constituted by the aṅgulas. Hence avoiding the details of Aṅgula as are stated in the Mānsāra, let us concentrate on the evidence of the S. S.

Proportionate measurements being the very essence of the architectural planning, the author of the S. S. devotes a separate chapter to this. The unit of the measurement in architecture is Hasta. It is defined as the instrument of all Vāstus, the only basis of all the actions (pertaining of course to the constructions, etc.); the only medium through which all the proportions of measurements can be ascertained. It is of three kinds—superior, ordinary and inferior.

The units of absolute measurements being :—

8 Reṇus	=1 Bālāgra
8 Bālāgras	=1 Liksā
8 Liksās	=1 Yūkā
8 Yūkās	=1 Yava-madhya
8 Yava-madhyas	=1 Aṅgula called Prāśaya
7 ,,	=1 ,, called Sādhāraṇa
6 ,,	=1 ,, called Mātrāśaya
24 Aṅgulas	=1 Hasta i.e. the modern foot.

This Hasta consists of 8 parts (Parvas), the middle half should be indicated and the remaining portion to be divided into divisions of Aṅgulas. All the Aṅgulas should be indicated by lines, only three of which are to be decorated with flowers and others left undecorated.

After this, certain trees of which this rod should be made are enumerated together with the trees unfit to be employed in its construction. The Parva-rekhās (the lines) of this yard-stick are said to have the presiding deities beginning from the centre, the place of Brahmā.

Directions are given with regard to the use of these different kinds of yard-sticks:—

The superior yard stick called Prāśaya is to be employed in the measurement of Prāsāda, temples, Veśma, the large buildings, drenches, moats, gates, Rathyā, Sabhā, etc. The middle type called Sādhāraṇa is employed in measuring talocchrāyas, mūlapādas, subterranean water reservoirs, dolās, rock-cut temples and surangas etc., while the inferior one called Mātrāśaya is fit to measure the weapons, the rod of the bow, conveyances, cots and couches, wells, vāpīs, elephants, horses, araghaṭṭekṣu-yantras, chatra, dhvaja etc. etc.

Other units of measurements are now described :—

1	Angula	=1 Mātrā	12 Angulas		make one Vitasti
2	,,	=1 Kalā	14	,,	make one Pāda
3	,,	=1 Parva	21	,,	make one Ratni
4	,,	=1 Muṣṭi	24	,,	make one Aratni
5	,,	=1 Tala	42	,,	make one Kiṣku
6	,,	=1 Hasta	84	,,	make one Vyāma or puruṣa
7	,,	=1 Diṣṭi			
8	,,	=1 Tūṇi	96	,,	make one Cāpa or Nāḍī-yuga
9	,,	=1 Prādeśa			
10	,,	=1 Śayatāla	106	,,	make one Daṇḍa
11	,,	=1 Gokarṇa	30 Dhanuṣas		make one Nalva
			1000	,,	make one Krośa
			2000	,,	make one Gavyūti
			4 Gavyūtis		make one Yojana

Another interesting item of the description (of Arithmetic) is the 20 numbers.

1. One	1	11. Kharva	10000000000
2. Ten	10	12. Nikharva	100000000000
3. Hundred	100	13. Śankha	1000000000000
4. Thousand	1000	14. Padma	10000000000000
5. Ayuta	10000	15. Amburāśi	100000000000000
6. Nivuta	100000	16. Madhya	1000000000000000
7. Prayuta	1000000	17. Antya	10000000000000000
8. Arbuda	10000000	18. Para	100000000000000000
9. Nyarbuda	100000000	19. Apara	1000000000000000000
10. Bṛnda	1000000000	20. Parārdha	10000000000000000000

In the end are given the details of ten units—the time numbers (Kāla-saṅkhyā) :—

1 Eye-twinkling	... ...	... 1 Nimeṣa
15 Nimeṣas	... ...	... Kāṣṭhā
30 Kāṣṭhās	... ...	... Kalā
30 Kalās ...	... ...	... Muhūrta
30 Muhūrtas	... ...	... Day and night
15 Ahorātras i.e. days and nights ...		... Pakṣa
2 Pakṣas ...	... ...	... One month
2 Māsas ...	... ...	... One Ṛtu
3 Ṛtus ...	... ...	... One Ayana
2 Ayanas	... ...	... One year

ĀYĀDI-ṢAḌ-VARGA

According to the S. S. the Āyādi is a group of six, namely Āya, Vyaya, Aṃśa, Ṛkṣā, Yoni, and Vāra-tithi. It is said these are the six formulas, "with which the perimeter of structure shou'd conform". They are in a way "six proportions, six main component parts of a building comprising Adhiṣṭhāna (base), Pāda or Stambh (column), Prastara (entablature), Karṇa (ear i.e. wings), Śikhara (roof) and Stūpi (dome)"—Ency. H. A. p. 500.

These formulæ in different texts are not the same. According to the S. S. they are Āya, Vyaya, Yoni, Tārā, Bhavanāṁśaka and Gṛha-nāma. Āya represents the group of eight beginning with Dhvaja, Dhūma, Siṁha, Śvā, Vṛṣa, Khara, Kuñjara and Dhvāṅkṣa. It also lays down tne respective efficacy of these Āyas in the respective planning together with their virtues and defects (vv. 21-24).

The Vyaya represents the group of three—Piśāca, Rākṣasa and Yakṣa. Similarly the Aṁsas are also three—Indra, Yama and Rājā. As regards the Ṛkṣā, Tārā, they are distributed in three groups of nine each—Sura-Gaṇa, Rākṣasa-Gaṇa and Mānuṣa-Gaṇa. These 27 Tārās are of common knowledge.

This Chapter gives a detailed information on the application of these sixfold Karaṇa in the house operations. It says, "With the group of three in favour, the operations are auspicious, with two or one, inauspicious and on the other hand, with four it is very much auspicious".

In the end this Chapter also takes up another set of six technically called Chandas. They are Meru, Khaṇḍa Meru, Patākā, Sūcī, Uddiṣṭa and Naṣṭa, a detailed notice of which forms the subject-matter of the last section.

All these Canons are inter-related: Whether the orientation of a building is correct and whether the measurements as laid down in regard to the different structures are correct, auspicious and conform to the orientation, are further tested by this very fundamental canon of the Āyādi six-formulas. Saḍvarga, accordingly is a group of six, six formulas, with which the perimeter of a structure should confirm, six proportions, six main component parts of a building comprising adhiṣṭhāna (base), pāda or stambha (column), prastara (entablature), (Karṇa ear, wings), śikhara (roof) and stūpi (dome). This is only a general definition of the Saḍvarga. According to the Mānasāra the Āyādi-ṣaḍ-varga, however, represents a set of six formulas with which any particular measurement must conform before it can be accepted. Thus our previous thesis that this canon is a step forward towards the correct orientation and the proportions of measurements of a structure is supported. 'The invention of Āyādivarga is an architectural device, the intention of which is to find out a proper orientation to the structure and a proper dimension. Among the architectural conventions of India, Āyādivarga occupies an important place. Every measurement before it is accepted is required to satisfy these six fundamental requisites. Every architectural treatise prescribes a variety of dimensions, but these have to be further subjected to an examination in view of the fact that Hindu structures have to satisfy the considerations of auspiciousness, propriety and orientation. It was with a view to enabling the builder to select the auspicious and proper measurement that these traditional architectural formulas known as Āyādiṣaḍvarga are described in Indian architectural literature.'

How the correct orientation of a building particularly of a temple is dependent on these formulas, can be understood with especial reference to Yoni, one of the six members of this 'varga' (the others being Āya, Vyaya, Ṛkṣā, Tithi and Vāra). According to our tradition, orientation according to its location on Īśa is a pre-requisite of planning. Thus temples possess either the Dhvaja or the Vṛṣa Yoni (the Yoni is eightfold—the other six are Vāyas, Dhūma, Siṁha, Śvā, Vānara and Gaja, which also determine the eight Vāstupuruṣas as we shall soon see). Mallaya rightly interprets this tradition when he says—"Temples located in any of the quarters beginning with Īśa and

ending with Yama in a village, capital or city will have Dhvaja Yoni (i.e. Yoni No. 1). In the remaining quarters, the Yoni will be Vṛṣa, (i.e. No. 5). The image that is to be installed will possess the Yoni of the temples. Thus an image enshrined in a temple which faces the west will have Yoni No. 1, because the Yoni of the temple which faces the west is Yoni No. 1. The idea in brief is that the sanctum and the image will possess similar Yoni and facirg". Thus of all the Āyādi-vargas, Yoni is regarded as the most important. Accordingly it has claimed the greatest attention at the hands of every authority on architecture. As already referred to, Yonis are eight in number which correspond to the eight quarters and hence their importance in the determination of the exact orientation is understandable. They are sometimes refered to by numbers 1, 2, 3, 4, 5, 6, 7 and 8. Dhvaja Yoni is accordingly called Yoni No. 1 and is positioned in the due East. Dhūma Yoni, is Yoni No. 2 and is located in the South-East. Siṁha Yoni is Yoni No. 3 and is located in due South and so on. Dr. Kramrisch completes this thesis of imperative importance of Yoni formula in relation to the orientation of a building (vide her Hindu Temple pp. 37-9) and her learned observations are worth quoting: "The position and orientation of a temple and of any building are determined analogous to the method according to which the place of sun or moon or one of the planets is found in the circle of Nakṣatras. According to the 'Sūryaprajñapti' the longitude of the heavenly body expressed in minutes is to be divided by 800, the quotient shows the number of Nakṣatras through which the planet has already passed and the remainder, the traversed part of the Nakṣastra in which it is at the time. In a similar way is ascertained the position of a building in the cosmos; that is the direction which it is to face: the measurement of the building is to be divided by 8. The remainder indicates the particular direction which will be its own out of the 8 directions. This particular direction is the Yoni, its birthplace in the cosmos, where it is marked by its Vāstupuruṣas. The Vāstupuruṣas, and the respective remainders are given by Utpala commenting on the 'Bṛhat-Saṁhitā' Ch. LII. 73, according to the teaching of other Acāryas, and not of Varāhamihira.

"If the remainder is 1, then the yoni is Dhvaja, and the building faces East, if the remainder is 2, the yoni is the S E and so forth. If there is no remainder the building would have to face North-East. This is to be avoided by all means; it would be of evil portent were the building to face any of the corners of the square; similarly also the remainder should not be 2, 4 or 6, it must be uneven, so that the entrance of the building faces the East, preferably or also the West

and less readily the North and still permissibly, the South The remainder is found in different texts by taking account of various measures of the building to be set up. The perimeter, for instance is multiplied by 3 and divided by 8. The remainder is that of yoni; should there be no remainder, the perimeter and proportions of the intended structure have to be altered. Death, destruction and varied ills result from a wrong orientation. If the building were to obstruct the course and order of cosmos it would provoke disorder in the kingdom, and in the body of the builder. Yoni is an architectural formula, the remainder gained through it, assures the fitness of the structure in order of things and the well being of the builder and his surroundings The remainder, particularly, is however, the Vastu, itself."

'Yoni constitutes the life and breath of the structure, particularly of a house. A proper and auspicious yoni is therefore required to be chosen for the same. Thus the Manuṣyālayacandrikā observes :

योनिः प्राणा एव धाम्नां यदस्माद् ।
ग्राह्यस्तत्तद्योग्ययोनिप्रभेदः ॥

Considering the fruits thereof, the general rule is that all odd yonis are good and even ones bad. Accordingly, 'Dhvaja' 'Siṁha' 'Vṛṣa' and Gaja are auspicious and 'Dhūma', 'Kukkura', 'Khara' and 'Vāyasa' are inauspicicus. The Śilparatna furnishes the details concerning the fruits that particular Yonis are supposed to yield. There is a consensus of opinion that Dhvaja is the best of all the auspicious yonis (cf. Mallaya).

With this general introduction and the utility of these formulas especially the yoni one in regard to the orietation of a building let us expound this canon in further details. It may be remarked that the different texts take different criterion of multiplication to obtain the yoni or the gain or loss as would be evident below: Utpala's commentary, 'Bṛhat-Samhitā' ch. LII. 73 multiplies the interior length and breadth of the building and divides it by 8. The remainder is the Yoni. Similarly 'Vāstu-rājavallabha', ch. III. 8 enjoins. In other texts, the height of the temple is taken into account (Vaikhānasāgama', ch. VI) while the 'Tantra-Sammuccaya', Part I. Ch. II. 3, considers the perimeter, and the Mānasāra, ch. IX. 68-74, the breadth of the building. Perimeter or breadth are multiplled by 3; -this indicates an area equalling that of a circle with the breadth or the perimeter of the building as its diameter".

So much about the Yoni formula The yoni is but one of the

six formulae, the Āyādi-ṣaḍ-varga—Āya, Vyaya, Ṛkṣā, Yoni, Tithi and Vāra—and to this group, of six is also added the formula of Vayas.

In the Saḍvarga, the remainder determines, the gain or loss which will accrue to the builder, the Nakṣatra (ṛkṣā), the lunar day (tithi) and the solar day (vāra) on which it is good to build that particular building. Though these formulae have their special domain of astrology in general, they are applied to building as though it is a living entity whose destiny is to be determined.

Now avoiding other details let us reproduce these formulae. As already remarked, different texts treat this canon differently. There are however principally two traditions, one represented by the Mānasāra and the other by the texts like, Kāśyapa-śilpa, Śilparatna, Vāstuvidyā, Manuṣyālaya-Candrikā and the S. S. In the former the length or breadth or circumference is to be multiplied and then divided while in the latter it is the perimeter which is to be so multiplied and then divided. The following reproductions from Mallaya (cf. Studies in Sanskrit texts on Temple Architecture) will make the whole position clear:

Mānasāra Formula:

(1) $\frac{L \times 8}{12}$ — R = Āya.

(2) $\frac{B \times 9}{10}$ — R = Vyaya.

(3) $\frac{L \times 8}{27}$ — R = Ṛkṣa.

(4) $\frac{B \times 3}{8}$ — R = Yoni.

(5) $\frac{C \times 9}{7}$ — R = Vāra.

(6) $\frac{C \times 9}{30}$ — R = Tithi.

Here L = Length; B = Breadth; C = Circumference.

Formula of the other texts:

(1) $\frac{P \times 3}{8}$ — R = Yoni.

(2) $\frac{P \times 3}{14}$ — R = Vyaya.

or $\frac{P \times 9}{10}$ — R = Vyaya.

(3) $\frac{P \times 8}{12} - R = \bar{A}ya.$

(4) $\frac{P \times 8}{27} - R = Ṛkṣa.$

(5) $\frac{P \times 8}{30} - R = Tithi.$

(6) $\frac{P \times 8}{7} - R = Vāra.$

(7) $\frac{P \times 8}{27} - Q = Vayas.$

Here P = Permimeter; R = Remainder; Q = Quotient.

"Each formula is a Śāstrika technicality and is known after the divisor in each case which is a figure corresponding to the number that forms each well-known group. Yoni thus represents the group of eight, viz., Dhvaja, Dhūma, Siṁha, Kukkura, Vṛṣa, Khara, Gaja and Vāyasa. Āya stands for the group of twelve commencing with Siddhi and Vyaya for the group of twelve beginning with 'Sikhara'. 'Ṛkṣa' represents the group of 27 Nakṣatras beginning with Aśvinī, 'Tithi' the group of 30 lunar days starting with Prathamā (of both the Full and the New Moon) and Vāra the group of 7 days of the week, beginning with Arka (Sunday). Thus the figures employed as divisor are clear enough, but concerning the multiplicatory numbers as 3, 8, etc., nothing is known.'

The application of the different formulae may be illustrated with reference to 3 cubits measure type as follows (cf. Mallaya):

The perimeter of a structure having $2\frac{3}{4}$ cubits breadth is 11 cubits. Here yoni is No. 1.

(1) Yoni $= \frac{P \times 3}{8} - R = \frac{11 \times 3}{8} - R$ is 1,
i.e., Yoni is Dhvaja (yoni No. 1)

(2) Vyaya $= \frac{P \times 3}{14} - R = \frac{11 \times 3}{14} - R$ is 5, i.e., Vyaya is 5.

or $= \frac{P \times 9}{10} - R = \frac{11 \times 9}{10} - R$ is 9, i.e., Vyaya is 9.

(3) Āya $= \frac{P \times 8}{12} - R = \frac{11 \times 8}{12} - R$ is 4, i.e., Aya is 4.

(4) Ṛkṣa $= \frac{P \times 8}{27} - R = \frac{11 \times 8}{27} - R$ is 7, i e., Ṛkṣa is 7.

(5) Tithi $= \frac{P \times 8}{30} - R = \frac{11 \times 8}{30} - R$ is 28, i.e., Tithi is 28.

(6) Vāra $= \frac{P \times 8}{7} - R = \frac{11 \times 8}{7} - R$ is 4, i.e., Vara is 4.

(7) Vayas $= \frac{P \times 8}{27} - Q = \frac{11 \times 8}{27} - Q$ is 3, i.e., Vayas is 3.

Much has been said on the importance of these formulas in relation to the correct orientation of the building. They are equally important in relation to the correct and apt measurement to which a particular building should conform. They are applied in measuring both the architectural and the sculptural objects. According to the Mānasāra the measurement of length is tested by the formulas under Āya and Ṛkṣa, of breadth under Vyaya and Yoni and of circumsference or height under Vāra and Tithi. Dr. Acharya, therefore, rightly observes on the importance of these formulas in helping to arrive at correct measurements : 'The necessity of these Saḍ-varga formulas seems due to the fact that in most instances where the measurement of any object is concerned, the Āgamas, the Bimbamāna, the Mānasāra and the other works on architecture quoted more dimensions than one. Thus for the length that an object is to be of, they instead of giving a single figure would quote, say, nine different measures. The Mānasāra in fact invariably gives nine different lengths, nine different breadths, and five heights concerning a building or image. Out of these different and varying measures which is to be selected would be determined by the application of the six formulas. Any of the different measures prescribed is open to be accepted only when it satisfies the tests of the Saḍ-varga. By a verification of the measurements with the respective formulas it would eliminate the risk of dimensions being selected that would be disproportionate among themselves and improper. This might have been the purpose that the authorities had in contemplation in prescribing the rules of the Āyādi Saḍ-varga in all the architectural treatises. The testing of measurements by the Saḍ-varga thus formed one of the most important points to be followed in architecture and sculpture, and we find a reference to it in these ancient works so many times and almost without exception wherever there are any specifications prescribed'.

Mr. V. K. R. Menon has worked these formulas to their most logical conclusions, though all his conclusions cannot be accepted without some modifications—vide his pamphlet 'Six Canons of Indian Architecture'—the details of which may be avoided here and the reader is referred to Dr. Acharya's Encyclopaedia for some of his conclusions with comments of the learned author of the Encyclopaedia (see page 509)

V. PATĀKADI-SAṬ-CHANDAS

Chanda is the aspect of the building. It is its rythmical disposition. It is rhythm of the structure like that of poetry. It is

poetry of building. The Science of metres or rhythms (chandas) extends to the rhythmical disposition of the ground-plan of the building and their vertical section (ūrdhvachanda) "The ground plan of the temple, whatever may be its variations, is analogous to the Vāstupuruṣamaṇḍala and retains in its rhythmic order proceeding from the centre and in the modulations of its perimeter, the knowledge of the Vāstupuruṣa in all his parts. The rhythm (chandas) of the ground-plan is derived from the order in the Vāstumaṇḍala. The telation of sacred architecture to the Vāstupuruṣa-maṇḍala is reflected more over in the sculptures on its walls; their iconography is essentially an iconometry (tālamāna)". This chanda of building has come down from the Vedic Altar (Agni). 'Thus it is said in the 'Śatapatha Brāhmaṇa' (VIII. 3. 3. 5) : "The metre measure (mā) is this terrestrial world, for this world is measured; the metre forth-measure (pra-mā), is the air world, for this is measured from this world ; the metre counter measure (Pratimā) is that heavenly world; for that world is counter measured in the air." The rhythmic formulae for the Bṛhatī and Vālakhilya bricks, are ('Tait. Samh.' IV,3. 7.1): Thou art Earth metre (mā), Air metre (pramā) Heaven metre (pratimā)......... The Season metre, the Star metre, the Mind metre, the Speech metre........." The inner rhythms of man and the worlds, and their presiding divinities Agni, Vāta Śūrya, the impelling and regulating agents in and of the special metre, are invoked in these mantras or rhythmic formulae which are addressed each to one brick, identified with the deity. Mahīdhara, comm. 'Vāj. S.' XIV, 18 explains Chandas, metres, as derived from the foot 'chad' to cover. Each brick, each building unit is imbued with rhythm. It is a charged and compelling weight and shape, in the hands of the builder. (cf. Āp. S. S., XVI, 28. 1. cf., the 12 mantras when laying the bricks in conformity with the golden Puruṣa.) With this rhythmic formula (mantra) are laid down three layers of the altar (Agni); the fourth layer is the Brahman (S. B. VIII. 4. 1. 3).

'Rhythm evokes a reality and measure builds it up. Whatever is produced is called 'Meya' ('Samarāṅgaṇasūtra-dhāra', IX. 28). It is measurable, capable of being known, a quantity (gaṇa ; 'Gaṇitasārasaṅgraha' 1. 10-15). (Gaṇita, the science of quantities and their computation, mathematics, is applied to architecture, Vāstuvidyā ; to Chandas, the science of rhythms, etc., to the dimensions of this earth, to the space world (the interspace, 'antarikṣa') and to the world of light and the gods ; and to the configuration and destinies of the beings therein.) Proportionate measurement (pra-māṇa) is essential to the temple (vi-māna) and

to the image (pratimā) alike. They are 'made' by it to the same extent as the Vedic altar and also the Vedi. When the Vedi is outlined on the ground, with the tip of the wooden sacrificial sword, this rhythmic formula (mantra) is recited: "With the sacrifice's forth-measure (pra-mā), peri-metre (abhi-mā), counter-measure (prati-mā) and upward measure (un-mī), I comprise thee" (Āpastamba Śrauta Sūtra', IV. 5. 4.). Three-fold and fourfold measure is here meted out; it has direction and building power. It is the object, its energy and form. To have measured the measure, "so that one may not measure further; in a hundred autumns, not before" (AV. XVIII. 2 38) means, that life has been lived consciously, adequately in every direction. " This measure (of life) man measures forth (pra), off (apa), apart (vi), out (nir), up (ut) together (sam), so that when he has measured it, it is said of him that he has gone to heaven" (AV XVIII. 2. 39-45).

"Whereas temples are built in differing styles, the Fire-Altar is subject to no such variation; its shape is independent of time and place, independent even of extensiveness, so much so that one of the types of the Vedic Altar is prescribed to be made of rhythms only (chandasciti) and not of bricks which are their representatives, (Baudhāyana Śulba Sūtra', II 62-86; "In the case of the Chandaściti, the Agnicit, the builder of the Fire-Altar, draws on the ground the Agni of prescribed shape. He then goes through the whole prescribed process of construction imagining all the while that he is placing every brick in its proper place with the rhythmic formula (mantra) that belongs to it. The mantras are recited but the brick it are not actually laid. The chandciti thus is the Citi or altar made up of Chandas rhythms or mantras instead of bricks or loose mud pieces (B. B. Dutt, 'The science of the śülba, p. 3, note)—of the 36,000 Fire-altars made of mind, speech, breath etc.; 'Vedānta Sūtra', III 3. 44 Śaṅkarācārya's comm).

The rhythmic formulae, the mantras however, even mentally recited, are extended in time. This time is not the dated time of history. It has its architectural analogy and notation in the Talacchand, the ground-plan of the temple.

Chanda is a characteristic of Nāgara school of Indian Architecture and accordingly this canon has found an important place in the canons of architecture as expounded by the two principal texts of Nāgara Vāstu-vidyā, the Samarāṅgaṇa-Sūtradhāra and the Aparājita-pṛcchā. Chandas as described in the Vāstuśāstra are sixfold—Meru,

Khaṇḍameru, Patākā, Sūcī, Uddiṣṭa and Naṣṭa (—Vide V.L.). Chanda of Vāstu means disposition of a structure or view of a structure as presented in its contour against the sky. In one word it is perspective view. In this respect Rhetoric, Music and Architecture stand upon a common platform, as they have each six primary Chandas as unitary basis. These 6 primary chandas give rise, in the first instance, to as may as 35 secondary Chandas just as six Rāgas of Music produce thirty six Rāginīs by a process of combination of one with the other. Mankad (who has very ably worked out this canon in a critical and comparative manner—vide his Introduction to the Aparājita-pṛcchā) accordingly says: out of these 36 secondary ones, there arise tertiary, quarternary etc. Chandas and their number reaches eventually to a figure with 6 dots or even more; and naturally so, as structures ministering to the needs of occupants of different grades in society, from Śūdra, Vaiśya etc. to kings and even gods and goddesses assume a variety of forms, and so do their contours present a corresponding variety of views. This will account for a large number of Chandas as described above.

This was our ancient tradition. Even today any building and every building structure does not present an identical view. Contours of structure assume multifarious forms as structures vary to suit the different classes of buildings and to satisfy different functions. Let us now take these six chandas one by one:

Meru: Chandas, we have seen are sixfold heading Meru. What is Meru ? It has the form of the earth; it is in likeness of the Meru Mountain and has its shape like a 'śarāva'. Mankad interprets "Such a view is presented by a mountain, — a Central pinnacle rising conisderably above the ground surface, and having sides sloping step by step in easy gradations all round, till eventually it reaches the general ground surface. I am irresistably prompted to quote the description of Boro Budour in Java, which unknowingly defines the view as Merucchanda. "From the square basic platform to the topmost of the circular platforms, is but 118 ft. in perpendicular height while the perimetere of the whole pyramid standing on that lowest platform is 2080 ft. so that the entire complexity of galleries with the bewildering wealth of ornamtation makes a much flattened half globe whose contour against the sky is a perfect curve in fact, one writer has unpoetically said that the work has been carried out so skilfully that from far away the structure looks not unlike a highly ornate dish-over."

The A. P. (Vide Vāstulakṣaṇas) enumerates about eighteen forms alongwith their illustrations of component parts of a structure tabulated by Mankad (ibid) some of which may be tabulated as hereunder:

1 माड, मौड, शुद्ध, शेखर, तुंगार and सिंहक—6 Chandas of royal mansion;
2. तृण, पट्ट, वाजिन्, पूर्ण, खण्ड and पाण्डु—6 Chandas of ordinary residential quarters;
3. One, three, five, seven and nine शाखा's of door ways.
4. लतिन, नागर, भौम, द्राविड, विराटक, सान्धार, विमान—Prāsādas.
5. पद्म, नाभि, सभामार्ग, मन्दार, भिन्न, मिश्रक—6 kinds of Vitānas.

(see 13 more—vide A .P. introduction).

Khaṇḍa-Meru: The Meruchanda as we have seen, presents a view which a mountain does, it has a central vertical rise with surface gradually sloping downwards as one recedes from the central axis and reaching eventually the ground surface. When, however, the outward peripheral circular ends do not form a complete circle but are only a part of it, the view is called a Khaṇḍa-meru when a portion of the Meru has been cut off vertically, leaving the exposed surface a precipitous cliff. (Vide, illustration c. d. a vertical plan cuts off the meru a. b. into two parts a and b-see Appendix in the end).

Patākā-Chanda. This is a view assumed by a flagstaff with the flag unfurled. The best illustration of this Chanda is supplied by the throne pillar in the Hall of private audience at Fatehpur Sikri. The exterior of this building gives an idea that is a double storeye d building while in fact it is a single storeyed one. There is one single apartment inside. Dr. Vincent A. Smith graphically describes it as under—"A massive octagonal column elaborately carved rises from the centre of the tesselated pavement, as high as the sills of the upper windows. It is surmounted by an enormous circular capital composed of three tiers of radiating brackets, each tier projecting above and in front of that below. The top of the pillar 10 ft. long radiates to the corners of the building where the quadrant shaped ends of the beams are received on corbelling, similar in structure to the brackets of the capital. The summit of pillar and the galleries radiating from it were guarded by parapets of pierced stone lattice work about 15 inches high.

Sūcī-Chanda. Though music, rhetoric and architecture are represented as having a common platform in the six primary Chandas viz. Meru, Khaṇḍa-Meru, Patākā, Sūci, Uddiṣṭa and Naṣṭa, it is appartent that the number of Chandas really speaking, reduces to four only, as Uddiṣṭa and Naṣṭa are not independent Chandas at all. In a Prastāra of 4 Gūrus, only 16 rūpas are formed and similarly in a Prastara of 8 gurus, 256 rūpas are derived. These rūpas may in

either case, assume a view which may be either a Meru, Khaṇḍa-meru, Patākā or Sūcī. If Meru, it is like a mountain; of Khaṇḍa-Meru, only a section of it. If Patākā, it is like a banner and if Sūci, it has the appearance of needle. But Uddiṣṭa and Naṣṭa have no perspective view of their own. They are not things like Meru etc. and hence they cannot be termed as Chandas. Structure of various kinds which have their contours against the sky in some shape or another determine these Chandas. Uddiṣṭa and Naṣṭa are the indicators of methods or contrivances, by means of which, the number and details of a rūpa in a Prastāra of various gurus are arrived at. Given a certain Prastāra say 1111, then Uddiṣṭa enables one to find out that it is the 16th rūpa in a Prastāra of 4 gurus. If, however, the question is reversed i. e. "what are the details for the 16th rūpa in a Prastāra of 4 gurus, it is Naṣṭa that supplies the method and says that the 16th rūpa is 1111.

Only these four chandas as Independent and Primary chandas. The Uddiṣṭa and Naṣṭa chandas are not independent ones. Mankad therefore rightly observes :

Uddiṣṭa. The method of finding the number of a rūpa in a Prastāra is as follows:—Take any rūpa, and put over each sign from the left to right 2^0, 2^1, 2^2, 2^3, 2^4, ... to 2^n where n represents the number of gurus minus 1. Then sum up the numerals over (1) laghu and add 1 to it : This will be the required number.

Illustration—Take one rūpa SSSS 11 in a Prastāra of 6 gurus for example. Now SSSS 11 put $2^0 = 1$, $2^1 = 2$, $2^2 = 4$, $2^3 = 8$, $2^4 = 16$ an $2^5 = 32$ over these signs. ∴ we have $S^1\ S^2\ S^4\ S^8\ 1^{16}\ 1^{32}$; add together the numerals on laghu i. e. $16+32 = 48$ and add 1 and we get 49. ∴ SSSS 11 representt the 49th rūpa in a Prastāra of 6 gurus.

Naṣṭa. What is the 49th rūpa in a Prastāra of 6 gurus. A Prastāra of 6 gurus will have evidently 6 signs (guru and laghu).

Put as under

(1) (2) (3) (4) (5) (6)

59 is odd ∴ for (1) put S.

As 49 cannot be exactly divided by 2, add 1 to it and the divide it by 2.

If the qustient is odd, put S; if even, put 1. Now $49 + 1 = 50$. $50/2 = 25$; 25 is odd ∴ for (2) put S.

Similarly 25 being odd, cannot be exactly divided by 2, ∴ repeat the above process and we have 25+1 = 26 and 26/2 = 13.

This 13 is odd ∴ for (3) put S.

Similarly 13+1= l and 14/2=7 ∴ for (4) put S.

Proceeding in the same way 7+1=8 and 8/2=4, put 1 for (5) and as 4 is still divisible by 2, ∴ 4/2=2. This being an even number put for (6) 1 and get the details SSSS.

S S S S 1 1
(1) (2) (3) (4) (5) (6)

For the Uddiṣṭa and Naṣṭa Mankad's working has been reproduced.

N. B. (i) This Prastāra-Techinque would be more elaborated in its proper place—the Gṛha-Saṁyojana (Vide Pt. III House-architecture).

N. B. (ii) Mankad has entered into a lengthy discusion on the so-called Bathos of Dravidian temples (cf. Mr. Ananthalwair Indian Architecture Book II Chap. III) which as matter of fact resolve into Chandas of Nāgara canons of Indian architecture. Dravidian bathos in the language of Chanda ultimately resolves itself into one phase of Khaṇḍameru. As it is, it is nothing more nor less than two Khaṇḍa merus placed with their bases in such a way that their vertical sides are away from each other as

A B
C

giving rise to the outline ACB in the direction E and W, and similarly of two more Khaṇḍamerus placed in the same position and in the direction S and N, thus eventually giving rise to a hollow through or valley formed by four Khaṇḍamerus in four cardinal directions arranged in the particular manner described above. If these Chandas with all their concommitants are once appreciated in all their bearings, the Egyptian temple wherein there is no Vimāna or turrett of any description, over the sanctum, but there are at the outer entrance, two pylons, the prototypes of Dravidian Gopuras, and wherein the section decreases and becomes simpler and more modest, as one approaches the holiest spot in the temple, will at once be realized as an example of Khaṇḍameru, one of the six main perspective-views. The temple of Tanjore

which the author of Indian Architecture considers as a solitary instance of exception to his Dravidian idea of bathos, if viewed in light of Chandas of the Nāgara school will cease to be an exception but will be a pure and simple illustration of Merucchanda. Similarly we can say for the Java and Cambodian schools.

Thus closes an introduction to these Five Canons of Hindu Science of Architecture which the present writer considers as more fundamental than others.

PART II

CANONS
OF
TOWN-PLANNING

PART II

TOWN PLANNING

Introductory

About Forty years ago when Sri B. B. Datta wrote his masterly treatise 'Town Planning in Ancient India' he had practically exhausted all the evidence on the canons of town-planning as was available in the ancient texts of Purāṇas and Vāstu-Śāstra texts like Mānasāra and Mayamata as well as treatises like Artha-Śāstra of Kauṭilya and Śukra's Nītisāra. It is proposed to correlate here on the new evidence furnished principally by the S. S. and secondarily by so many other treatises of Vāstuśāstra. These have provided some vistas of additional value, the opening of which will illuminate the development of their civic art by the time of Raja Bhoja, the 1st part of the Eleventh century A. D.

Accordingly after we have sufficiently covered the background of our subject matter, let us now expound the Śāstra in a bit more technical and practical manner. Hindu science of architecture, as we have seen, not only formulates fundamental canons of the planning what may be termed as the engineering of architecture, but also exhaustively deals with the principal types of architectural planning—the towns, the temples and the residential houses. This part is reserved for the exposition of town-planning in ancient India. Naturally, therefore, we have to pen this subject in its manifold aspects, the region or country, the sites and soils, thus determining the selection of the site for the planning of the various and manifold types of towns, villages and forts. Towns in ancient times rose not in haphazard manner. Every town had its own history. Accordingly towns grew with a distinct and definite socio-political and religio-cultural need. There were capital cities, the Rājadhānī towns and there were the commercial towns, harbours, the ports etc., the Pattana. Similarly the temple-cities, garden-cities, health-resorts, riparine towns etc., etc. also came to their existence as per the above dictum. But before we proceed with this pre-requiste of the site-planning or its selection we have to give an account, not only of the rise and development of manifold types of towns and their special categories, the different and manifold varieties of villages and forts, but also of some of the basic factors which contributed towards this evolution and which, in the context of human civilization and the humanity at large are really most fundamental. Thus this forms the subject matter of the first two chapters.

The 3rd chapter will be devoted to the subject, as already hinted above; where we will proceed with the region, the Deśa and the Deśa-Bhūmis i e. the regional planning and the selection of the site along with so many architectural matters like the orientation, the Vāstu-Pada-vinyāsa (already dealt with in the 1st part) and Kīlaka-Sūtra-pāta etc., etc. and non-architectural ones like the Śodhana, Karṣaṇa, Balis etc., etc. In the 4th chapter we may take up the subject of Road-Planning and the 5th may be devoted to the Folk-planning. The sixth Chapter would be devoted to the planning of the sites of Nagara devatās, the deification of the town and laying out of the temples therein along with its most intimate planning of public parks, gardens, orchards, ponds, Vāpīs, Kūpas—the natural reservoirs not only for the beautification of the towns but also supplying the need of the temples, the flowers for worship. In the seventh chapter we may take up the fortification of the towns so meticulously adhered to, both by practice and precepts. In the eighth chapter we would be competent enough to dwell at some length on the defective towns, the inauspicious ones, after we have grasped a little the norms of good town-planning. In the last chapter we have to philosophise the system in the broader context of Indian culture and the culture of the humanity at large, where the city no more remains a static structure but a dynamo of citizenship which in its turn, in the opinion of the ancient writers like Vātsyāyana, is the fittest place for the cultivation of arts. This is one concluding aspect of our estimate. Yet another very important aspect being the review of the ancient ideals in the context of the modern system and to evaluate how far the ancients can still help us in our present day National Reconstruction especially in our town-planning policy. What are our present requirements ? What are the gifts of our heritage? How can we so combine them, so synthesise them that our living gets evolved good, beautiful and benevolent so that the mission of the art can be fully obtained and perfectly cherished.

CHAPTER I

ANTIQUITY OF TOWN PLANNING IN INDIA
AND
ORIGIN AND GROWTH OF INDIAN TOWNS

A. Antiquity of Town Planning.

We have already written something on the antiquity of the founders of the Vāstuśāstra which in its turn pre-supposes the antiquity of Town-Planning in ancient India, as Town-planning has invariably formed a principal topic of practically every important treatise of Vāstuśāstra. Moreover some of the most renowned excavations of ancient Indian sites like Harappa, Mohenjodaro etc., etc., have thrown a flood of light on this ancient Indian civic art and the most refined civic sense of our ancestors whether they were purely Aryan or purely non-Aryan or an admixture of both. Further again the earliest literary documents of the World,—our Vedas and especially the Ṛgveda also corroborates, as we presently see, this archæological evidence. It is therefore not very difficult to surmize that the town-planning in ancient India is of a hoary antiquity. Our primordial architects like, Viśvakarman and Maya are alluded to in the earliest datable literature like Mahābhārata and Rāmāyaṇa, not as builders of houses but builders of towns. Town-planning presupposes the building of the houses no doubt, but the first pre-requisite of any planning in relation to the habitations of men must start with the planning of town, in its broadest sense rather than with that of the houses in its most haphazard fashion as we find today in most of the existing Indian towns.

Town-planning is a civic art and civil architecture, hence any mis-givinings in relation to our secular architectural traditions and tendencies in our civilization must not stand. Rise of cities is synchronous with the rise of a civilization. Forest-hermitages and caves in the mountains so much made prominent in our ancient living modes must not give an impression that we were a race of foresteers or caverns. It was love of nature and love of the spiritual realization or more properly the self-denial that some of the greatest leaders, and of men thought, in ancient India, our Ṛṣis used to live in forests. The solitude, the perennial communion with nature, the purity and solemnity of the atomosphere were some of the considerations which must have weighed with our ancestors to choose these so called unostensious sites,

otherwise side by side there were, the rise and growth of some of the most well-planned and perfectly laid out cities, for the Nāgarikas to live and cultivate the arts and refinements as Vātsyāyana would have them. Thus our civilization clearly had recognised both the ways of life, the spiritual realization and the material cultivation. It is in this way that the perfection of culture was laid down. Here it must be frankly admitted that they never gave lift to materialism on the spirit, their non-attachment to the material pursuits, their detached out-look really helped them to keep the banner of the spirit aloft, otherwise we would have lost in oblivion as others have lost

Town-planning presupposes not only the regional planning but also site-planning, the latter of which is not only a partitioning of different plots of the towns but also a systemic graph, meticulously adhering to the correct orientation of the site. This systematised and scientific knowledge of the earliest Indian Aryans is corroborated with their sacrificial symbolism and Vedī-construction. 'The close connection of the geometrical system (denoted by the mystic figures Paramaśāyika, Svastika, Sarvatobhadra etc.) with the Vedic sacrificial lore, and the position of the master-builder as a high priest or sacrificial expert, are indirect proofs of the great antiquity of the Indian Science of town-planning; for geometry as a science was an Indo-Aryan invention and had its origin in the complicated system of Vedic sacrifices in which it became necessary to resolve geometrical problems such as constructing a circle equal in area to a square or *vice versa*." The laying out of the Indo-Aryan village is treated in the Śilpa Śāstras as the preparation of Sacrificial ground'—Havell. He further remarks confirming his foregoing observation: "If it be true—as the Russian scholar, Sheftdovich, asserts—that the Kassites, who took Babylon in 1766 B. C. and established a dynasty there, which lasted for 600 years, were Aryans speaking Vedic Sanskrit whose chief god was Sūrya; Babylon must be regarded as a halfway house of the Aryan race in its march towards the Indus valley and some at least of the early Aryan tribes must have acquired, before they entered India, not only the high spiritual culture which is reached in the Ṛg Veda, but also a prolonged experience of the civic arts, including architecture."

The plans of towns and their denominations based on or identical with those of the geometrical figures of the Vedic altars, have survived through out our history of town-planning in ancident India as is corroborated by the Śilpaśāstras which to some extent are based on the Sūtra works (especially the Śulba). In our review of the

antiquity of the Vāstu lore, as represented by the various literary compositions like Saṁhitās, Brāhmaṇas and Sūtras etc. etc. we have already seen so many words suggestive of our architectural knowledge in that distant past. Certainly the people, who could construct iron forts, plan colonade edifices, lay out large villages, can certainly be credited with sound knowledge of civic arts. The observations of Macdonnel and Keith (vide Vedic Index. Pur, pp. 538-39) on the Vedic towns: "On the whole it is hardly likely that in early Vedic towns city life was much developed......... " are really not only now untenable but are based on their pre-conceived view that early Indo-Aryan civilization was more a primitive than the advanced civilization. The contemporary Indus valley civilization and so many other notable archaeological evidences which have been established in the recent times, also prove the untenability of this proposition. Further, there are innumberable words (already referred to and taken notice of) in the Ṛgveda itself which suggest that the there were towns of different grades esp. pura, grāma, nagara and durga; they were spacious (cf. such epithets as Urvī and Pṛthvi) and they were fortified (cf. Āyasī etc.). S. C. Sarkar (Some Aspects of the Earliest Social History of India p. 19) also supports this conclusion. "The view of Zimmer and others after him (Vedic Index 1.538 to 540) that the Vedic India knew of nothing more solid and complex than the hamlet, like the early Germans and Slavs who had no castle structures and town-life, is an extreme one; for it now being realized more and more as a basic fact that the Vedic Indians, like the Iranians, Hellenes, and Italians, were superimposed upon an earlier civilization...............Thus it becomes quite reasonable to find in pṛthvī, urvī, śatabhujī, aśmamayī or āyasī purs, or the massive, extensive, hundred-walled stone-built, or iron-protected forts, the vivid descriptions of new and wonderful things the Vedic heroes actually saw; and rather forced explanations discovering in them mysteries of myths and fancies of metaphor become unneccessary"—Sarkar (ibid). The archælogical remains discovered at Harappa, Mohenjodaro, and other places in Sind fully corroborate this view.

The excavations at Harappa, and Mohenjodaro further prove the antiquity of ancient Indian Town planning—cf. Marshall.

It may be remarked that it would not be justified to view the antiquity of ancient Indian town-planning in regard to Indo-Aryan or the Vedic Indians alone. What about the bulk of the population of this great sub-continent, the aboriginals, who were definitely the founders of great cities and fortified towns as is fully evident

from the excavations at Harappa, Mohenjodaro and at other ports in Sind. It may also be born in mind that according to our Śilpaśāstras or Vāsturśāstras the planning of a village or town does not make much difference. The canons are indentical, only the size may be varying. A town is a large village. Similar is the case with the forts. According to the Mānasāra as we have already seen, there is not much difference between a village, a town and a fort—all are fortified places intended for the residence of people. A town is the extension of a village. A fort is in many cases nothing more than a fortified town, with this difference, that a fort is principally meant for purpose of defence, while a village or town is mainly intended for habitation. This canon of the earliest of the Vāstuśāstras is only a tradition of the earliest of the literature, the Vedas, and the deniers of the Vedic city-life (cf. Macdonell and Keith), themselves prove our proposition—vide Vedic Index under Pur pp. 338-39 and grāma pp. 244-5 as is evident from their own observations, "Pur is a word of frequent occurrence in the Rig Veda and later, meaning 'rampart,' 'fort' or 'stronghold'. Such fortifications must have been occasionally of considerable size, one is called broad (pṛthvī) and wide (urvvī). Elsewhere a fort made of stone (aśmamayī) is mentioned. Sometimes strongholds of iron (āyasī) are referred to, but these are probably only metaphorical. A fort 'full of kine (gomatī) is mentioned showing that strongholds were used to hold cattle. 'Autumnal' forts (śāradī) are named, apparently as belonging to the Dāsas; this may refer to the forts in that season being occupied against Aryan attack or against inundations caused by overflowing rivers. Forts 'with a hundred walls' (śatabhujī) are spoken of. It would probably be a mistake to regard these forts as permanently occupied fortified places like the fortresses of the medieval barony. They were probaly mere places of refuge against attack, ramparts of hardened earth with palisades and a dich (cf. dehi). Pischel and Geldner, however, think that they were towns with wooden walls and ditches like the Indian town of Pāṭaliputra known to Megasthenese and the Pali Texts".

"The primitive use of this word 'grāma' which occurs frequently from the Rig Veda onwards, appears to have been 'village'. The Vedic Indians must have dwelt in villages which were scatterd over the country, some close together, some far apart, and were connected by roads. The village is regularly contrasted with the forest (araṇya) and its animals and plants with those that lived or grew wild in the woods. The villages contained cattle, horses and other domestic animals as well as men. Grain was also stored in them. In the evening the cattle regularly returned thither from the forest. The

villages were probably open, though perhaps a fort (pur) might on occasions be built inside. Presumably they consisted of detached houses with enclosures, but no details are to be found in Vedic literature. Large villages (Mahāgrāmas) were known. The grāma may be regarded as an aggregate of several families, not necessarily forming a clan but only part of a clan (viś), as is often the case at the present day." Dr. Bhattacharya—Vide 'A study on Vāstu-Vidyā or Canons of Indian Architecture' p. 15-16, had very profoundly adduced, the existence of planned towns and laid out cities in the Ṛg-vedic times. Indra is said to have destroyed 99 cities of Asura Śambara. One single reference to the hundred cities made of stone (Aśmāyasā) occurs in Ṛg. VI 3 :.20 Similarly cities with hundred enclosures or fortifications (śatabhujī) are also referred to—I. 166 8.

The common element of fortification in practically all the pricinple habitations of men, the grāma, the nagara and the durga in that early epoch of Aryan life is further supoprted from such early words as 'gotra' (where cows where protected in an enclosure) or gopura (the grāmadvāras).

Later Saṁhitās, Brāhmaṇas and Sūtras have ample evidence to our theory of an early civic sense and civic planning there of, among the early Aryans in this land. The Epics, the Rāmāyaṇa and the Mahābhārata contain abundant references and glorious descriptions thereof, from which it is safely said that the town-planning in ancient India had attained a stereotyped canon lasting for full thousand years as is evident from the description of any town or city, Nagara or Nagarī, in practically all the representative writers of the classicial age, Kālidāsa, Aśvaghoṣa, Kumāradāsa, Māgha, Bāṇa Śrīharṣa as well as the archaeological remains, from the earliest period to later medieval Indian history, when the Mughal forts and palaces were built on the same stereotyped canon—the palaces having several courts and towns fortified. In regard to the planning of the former (the palaces) we shall see, afterwards vide—Pt. IV palace-architecture. Hare let us dwell a little more on the towns.

In the Rāmāyaṇa, towns and forts and even antaḥpuras were protected by strong walls and ramparts. Ditches were dug around to afford additional protection. "Four elaborate gate-ways (gopurams) were erected for entrance into the city and each was approached by crossing a bridge erected over a ditch and supported by many pillars and platforms. The entrance was protected by strong doors and bolts. Watch towers (aṭṭālaka) from which the movements of the enemies outside the city walls were watched, were also raised. These were the usual essential features of a town. This is apparent from the

fact that they were not confined to Ayodhya alone but are also noticeale in the description of Sugrīva's capital in Kiṣkindhā and of Rāvaṇa's at Laṅka"

The references to many-storeyed buildings, as we have seen and the fortification referred to above, and the well-planned high road (suvibhaktamahāpatha) of the town hold before us a vivid picture of the very advanced town-planning in ancient India and it just be said to that high sense of civic sense and citizenship which must have developped at that time. In consonance with the great attention devoted to the science and its diffusion among the people, the ancient Hindus developed a high tone of civic consciousness. Every poet seems to take pride in his beloved city and in glorifying it. Sister Nivedita says (vide 'Civic and National Ideals' p. 6-7). "It is more than likely, indeed, that Vālmīki's poem sprang out of a deliberate wish to glorify the beloved city of Ayodhya by painting the mythic history of its earliest sovereigns. The city, and every thing in it, fill the poet with delight. He spends himself in descriptions of its beauty on great festivals. He loses himself in the thought of its palaces, its arches, and its towers. But it is when he comes to paint Laṅkā, that we reap the finest fruit of that civic sense which Ayodhya has developed in him. There is noting in all Indian literature, of greater significance for the modern Indian mind than the scene in which Hanūmān contends in the darkness with the woman who gaurds the gates saying in muffled tones: 'I am the city of Laṅka":

"अहं हि नगरी लङ्का स्वयमेव प्लवङ्गम"

As regards the Greater Epic, the Śānti Parva contains several chapters dealing with fortification of the cities at the time of danger (XII-62). The Classification of forts into six varieties found in the Mahābhārata (XII. 5), (XII. 86) is akin to those of the Śilpaśāstras. This classification of six-fold Durga is similar to those we find in Manu and Purāṇas. Other elaborations in regard to the forts may be seen in Bhattacharyas book p. 45—46. The Mahābhārata refers to a city having six walls, (ṣaṭpadam) forming as it were, concentric circles round it (XV. 5; 16). Mention of Gopuras of the town is a usual description. 'Mahārathyā', 'Mahāpatha' and 'Rājamārgas' indicate how the towns were divided and planned out on a sound scheme. "The streets ran in various directions and crossed one another, the place of junction being an object af worship by the people (V. 194. 58). The epithet "Devatāvādha-varjitam" applied to streets, reminds one of the injunction found in the Śilpaśāstras. On two sides of the Mahāpathas were the shops (III.

206. 8) and sheds for supplying drinking water (Prapā). The Prāsādas, Toraṇas, Yūpas, Caityas and gardens further beautified the cities. All these details of a town enable us to form an idea of the town-planning of the time. Besides the town, mention is also made of Grāma, Ghoṡa, Śākhānagara, Janapada and so on"

After the Epic Age, comes the Budhhist Age which also gives fullest of details in regard to the Town-planning in ancient India. For the Buddhists the two most important sources are Jātakas and Pali canons. Rhys Devids (Buddhist India pp. 64-65) writes: "We are told of lofty walls, ramparts with buttresses and watch towers and great gates, the whole surrounded by a moat or even a double moat one of water and one of mud." This is corroborated by a story no. 518, where we find a description of a city with ditches and moats around. The streets were lined with houses and shops. Such descriptions of towns in the Jatakas are very similar of those found in the Epics cf. the original quotations appended in the end.

It is also said that the hill fortress girivraja four and a half miles in circumsferene, is said to have been built by Maha Govind, architect. The stone walls of Girivajra are the oldest extānt stone building in India. Percy Brown however keeping in view the early character of Indian architecture says: "Cities largely of wooden construction, therefore, began to appear in various parts of the country, and according to Dhammapāla, the great Buddhist commentator, they were planned by an architect of the name of Maha-Govinda who is stated to have been responsible for the lay-out of several of the capitals of Northern India in the fifth centruy B. C. This is the first mention of an architect in the annals of the country. In principle, these cities were rectangular in plan and divided into four quarters by two main thoroughfares intersecting at right angles, each leading to a city gate. One of these quarters contained the citadel and royal apartments another resolved itself into the residences of the upper classes, a third was for the less pretentous buildings of the middle class, and the fourth was for accommodation of traders with their workshops open to view as in the modern bazaar."

This perhaps is based on Diggha-Nikāya XIX, 36—vide tabulations in the Appendix. Mention is also made of Ayodhyā, Varānasī, Kampillā, Kosāmbī, Mathurā, Mithilā, Sāgala, Sāketa, Sāvatthi. Ujjeni, Vesāli and other cities of which, however, few architectural details are given (Vimāna-Vatthu, Commentary, p. 82).

After the Buddhist period of our history, it no more remains the antiquity of Town-planning in ancient India After this period it hea

comes a stereotyped canon in Indian Civic life, a most scientific picture is the gift of the great Kauṭilya (cf. his Arthaśāstra) and the later works belonging to the classical sanskrit literature including some of the later Purāṇas and Āgamas which abound in town-planning-technique in its fullest of details. The poetical campositions like those of Kālidāsa and Aśvoghoṣa, Daṇḍī and Bāṇa, Kalhaṇa and Śrīharṣa and a host of others also accord to this heritage and a tabulation of these glorious descriptions are appended in the end. Hence this little introduction to this subject of the antiquity of town-planning in ancient India may do for our purpose. Now let us take up the other complementary topic of this chapter—the origin and growth of Indian Towns also.

B. Origin and Growth of Indian Towns.

The story of the origin and growth of towns is really very fascinating. The natural laws governing it are universal. Sometimes a village develops into a great town and sometimes simple shrine dedicated to a deity becomes not only the renowned centre of pilgrimage but also gets converted into a big temple city. An awkward fortress or citadel sometimes has resulted into a capital city and a market place into a big commercial town. Some of the biggest Indian towns had their beginning in a group of villages. Great cities like Bombay and Madras, Chittogong and Kaveripum-pattinam rose out of a necessity for a trading post through the sea. The sacred banks of the sacred rivers like Gaṅgā, Yamunā, Kāverī, Godāvarī, Rāvī, Sindhu, Brahmaputra, to mention only the sacred-most, gave rise to many a city in ancient India. The Pauranic, the Epic and the Buddhist—all the the three ancient traditions glorify the Sacred Seven Cities of India—Ayodhyā, Mathurā, Māyā, Kāñchī, Avantī etc. etc,

Thus it is evident that the rise of towns in India or elsewhere is the fulfilment of the ideas as well as the necessities of life. It is a concrete expression of the motive forces governing the civilization and culture of man. It is the noblest monument of human art and concepts. Dutta says: 'In its genesis is unrapped upto a great measure the evolution of the civilization which built it. In Europe this is more true where cities were the making of civilization and history."

In India the evolution of towns presupposes two fundamental factors namely; whether they evolved consciously or unconciously, what may be termed as Svataḥ-pravṛtta or Para-pravṛtta. It is only a broadway characterization, and represents two extremes which is more true in Modern India rather than in its forerunner.

The truth however lies midway between these two extreams. Accordingly in case of Svatah-pravṛtta category of towns the natural advantages and easy communications must be viewed as the contributory factors. A market or temple, facilities of easy access and conveyance, especially by water, that is, prominent trade routes, navigable rivers or seas, a satrapy or fortress, the sacred bank of a sacred river etc. may be deemed as some of the natural advantages which contributed to the growth of the towns.

In the S. S. XVIII entitled 'Nagarādisañjñā the following nine synomyms have been given which to my mind unfold in a way the origin and growth of towns:

Nagara	Puṣkara	Sadana
Mandira	Sāmparāyika	Sadma
Durga	Nivāsa	Kṣaya & Kṣitilaya.

The Sadana, Sadma, Kṣaya, etc. are synonyms of houses which also indicate that a group of houses develops into a village and with the aforesaid advantages it consequently emerges into a fullfledged town. Similarly Puṣkara indicates to the evolution of those towns which rise on the bank of rivers or develop on the sea-shore. Durga, as already indicated is nothing but a fortified town, the origin of which may be traced from a citedal or fortress and Mandira, the temple, as we shall see, in India, they have been the nucleus of the development of great towns—the temple-cities of India.

This is also supported by the following synonyms of Pura or town in the "Śabda-kalpadruma" the famous lexicon:—

1. Geham 2. Haṭṭādiviśiṣṭa-sthānam 3. Vahugrāmīyavyavahāra-sthānam 4. Purī 5. Nagara 6. Pattanam 7. Sthānīyam 8. Kaṭakam 9. Paṭṭam 10. Nigama and 11. Puṭabhelanam.

A brief notice of these synonyms may be taken to bring home the implications of these words as to why they are all called towns or pura :

1. Geham—a house, rather a patriarchal family is the nucleus round which developed villages of the type of 'Eka-bhoga' in the definition of Manuṣyālaya-candrikā appended in the end where a single patriarch with his family and retinue lives. Such types of villages are still found in Bengal, the Pārās of Duttas, Ghoṣas, Banerjees and Mukherjees. In ancient India such pārās were called gotras. Such petty villages combined themselves and rose to great towns.

2. Haṭṭādiviśiṣṭasthānam and
3. Vahugrāmīya-vyavahārasthānam } both these words signify that an Indo-Aryan city was a market-village grown to greatness. In the states like U. P. and Punjab, a village is only a hamlet round about which is the vast expanse of paddy fields. There must be a market to serve the needs. It is this, the market place, surrounded by so many hamlets that were the Indian towns in embryo. This is the significance of both these synonyms. B. B. Dutta's observation on the significance of the haṭṭādi-viśiṣṭasthānam, may be quoted: "Moreover, the sites of great cities have often been indicated by some nascent industry—viz., a mine, a bed of flint, a layer of clay useful for household utensils. In cases like these it is quite possible that villages which have specialised in any art, working upon local materials, have grown into towns. Who can say that the importance of the localities which once developed into the famous towns, of Dacca noted for its finest muslin, of Kṛshṇanagar renowned for clay modelling, of Murshidabad distinguished for its silk-clothings, of Golkunda famous for its dimonds, of Agra known for its perfumery and marble works, was not partially derived from their excellent local manufactures which commanded a respectable market beyond the limits of the manufactories and that they were not the market -places where the artisans brought their articles for sale? There can also be cited here many modern instances of such factory towns, to wit, Jheria and Jamshedpur."

4 Pattanam & 5. Puṭabhedana—The former is also a commercial town. It is a sort of emporium. The S. S. however takes it differently as we shall see. Datta observes: "The necessity of a trading post led to the growth of many commercial towns in India, as also in other countries. From the very earliest times it has been customary for several tribes to share a common trysting place where they held their councils, and bartered their goods in the common markets." The definition of Pattanam (see ahead) as given in Mayamatam testifies to this nature. Mr. Venkatarama Ayyar, furnished us with an instance of such a commercial town: "Kaveripumpattinam is a very ancient city which was once a flourishing sea-port and a great centre of commerce. It is the Khabiros Emporion of the Greeks. It is also known as Pukar or the city at the mouth of the Kaveri. It had a splendid harbour and a light-house. This ancient sea-port which had an expensive commerce has ceased to be of importance owing to the silting up of the Kaveri"

Moreover "River sites, Sea-coasts, especially, the mouths of rivers offer the best facilities for the origin and growth of cities, because a river

is not only a means of communication with the interior of the country, a way of transport and locomotion, but it also offers an outlet unto the outer world, thus fostering and encouraging commerce. Rivers are national assets of no mean importance. Even in times of antiquity when the intinerant Aryans were spreading their civilisation and modern commercialism was out of the question, the great rivers of India offered the best routes for their spread and advance. Hence the first Indo-Aryan colonies were planted on the valleys of the Indus and the Ganges. Aryāvarta was the country where Aryan civilisation was promulgated first and this is the part of India which was watered by the above two great river systems, viz., the Indus and the Ganges. Besides, a coast belt, a river side. or a mountain valley is as easy defence in times of war as of access in times of peace These have also a never-failing sanitary importance. To these reasons combined with local advantages we owe the evolution of a great many Indo-Aryan settlements in the shape of riparian towns. It should be observed here that the orthodox treatises make it a rule to establish towns on the right bank of a river. Consequently all Hindu towns in India that are situated on the river lie on its right side.—Dutta." Accordingly such, riparian towns illustrate the type of Puṭabhedanam.

6. Nigama: is also a commercial centre as well as a variety of fort as we shall see.

7. and 8. Puri and Nagara: These need not be dwelt at length. They are too familiar to be expatiated upon. The seven ancient Indian sacred Puris are on every body's lips. These were not only hallowed by their greatness but also famous for renowned imperial seats having beautiful palaces and other specialities of great town. The copious description of Ayodhyā in Vālmīki's Rāmāyaṇa may be purviewed.

As regards Nagara, though it has become too common and popoular a word, it signifies a very fascinating origin. We know that there is a very advanced architecurel style, the Nāgara style with especial reference to temple-architecture. Sanskrit 'Nagara' in this connection may be studied with Tamil Nakar. It is used variously in ancient Tamil literature to mean a house, a temple, a palace or a castle and a city. It is thus in a nutshell the chief dynamic principle of ancient town-planning that these separate items should be so co-ordinated and each assigned such an important place in the city that that the arrangement conduces to the efficiency of town life,

The word 'mandira' in sanskrit also means a house and a town, as we have already seen. Accordingly lookirg through the hazes of the long-gone past, we shall find a holy shrine or temple in lieu of a good many Indian cities of today. In India it is a truism to say that a temple was a city in the making. Salubrious surrounding , perennial source of water like a large lake or tank leafy trees, plants full of flowers luxuriant vegetation, all connoting the fertility of the soil in the vicinity of temple ensure a rise of dwellings around it. Its sacredness, its renown, its priests and paṇḍitas famous for their scholarship and leadership of men, all taken together constitute the maxim that the temple was a city in making. Such temple-cities abound in India.

Again in very many instances, a temple in ancient India constituted a university in miniature. Datta says. "In process of time the importance and reputation of the temple, its deity, and its sage extended beyond the local limits. Hindus, in their old age or when they renounce the world generally love to raise their humble cottages in places of pilgrimage and some pilgrims would therefore take their permanent abode there. With the increasing population shops were started; resting houses were erected. It may be, the place grew and grew until a king selected the site for establishing his castle. What was before a secluded place with a solitary shrine was at once made into a ful-fledged city." Further more it is significant to note that the plan of temples especially in Southern India correspond to that of an Indo-Aryan village or town in its salient features.

9, 10 and 11 :—Sthānīyam, Kaṭakam and Paṭṭam: All denote defence. It was an ancient custom both in India and elsewhere to plan fortresses for efficiency of administration and government in the midst of villages which were grouped under their jurisdiction and supervision. The celebrated author of Arthaśāstra, the great Kauṭilya prescribes such a canon of political planning: "There shall be a 'Sthānīya' (a fortress of that name) in the centre of eight hundred villages, a 'Droṇamukha' in the centre of four hundred villages, a 'Kharvāṭikī' in the centre of two hundred villages, and a 'Saṅgrahaṇa' in the midst of a collection of ten villages."

These out-posts favoured the growth of towns and sometimes capital cities about them. A good many old cities show this genesis. The names of Cuttack (Kaṭaka), Sialkot, Nagarkot, Mangalakot, justify this genesis in as much as 'Kaṭaka' or 'Koṭa means a fort. The word 'Gotra' is full of geneological and defencive implication. It originally

meant an enclosure for kine (गाः त्रायन्ते ऽस्मिन् तद्), the respective property and possession, the cows of a particular family of our old patriarchs, the Ṛṣis and therefore it applied to denote a family descended from one of the several patriarchs. This is what Max Muller also points out as the connection between the etymological and secondary meanings of Gotra. 'In ancient times, when most wars were carried on, not to maintain the balance of power of Asia or Europe, but to take possession of good pasture, or to appropriate large herds of cattle; the hurdles grew naturally into the walls of fortresses, the hedges became strongholds; an Anglo-Saxon *tun*, a close German (*zaun*,), a town ; and those who lived behind the same walls were called a 'Gotra', a family, a tribe, a race"—Chips from a German Workshop.

Thus the implication of Sthānīyam and 'Kaṭakam' is clear. As regards 'Paṭṭam', it is derived from 'paṭṭa' a slab which denotes a hill-fortress and hill-forts giving rise to towns is well known in history. Some of the towns in Rajasthana e. g. Chittorgarh is a very good example illustrative of this truth. B. B. Datta, however, takes it as a crossing of highways which also illustrates the same implication. These highways mean the highways on the out-skirts of mountains.

Some notice is taken of practically all the 'paryāyas' having a considerable sense to formulate our theory that the origin and growth of Indian town is not only illustrative of them, but also revolves round them.

Now remain two more questions. How these individually explain the dictum of svataḥ and para pravṛtta categories and how villages have contributed to the growth of Indian towns.

The sthānīya, kaṭaka, paṭṭam types of towns explain the para-pṛvratta type and the rest of the svataḥ-pravṛtta one. The grouping of villages tantamount to the evolution of a big city or great town as is illlustrated in an ancient city, the famous Pataliputra. Havell rightly remarks : "The wonderful organisation of the Chandragupta's empire, of which Megasthenes gives us glimpses, was not the creation of the Mauryan statesmen, but the centralisation of the social and economic activities of the self-governing Indo-Aryan village communities. Pataliputra itself was only an aggregation of Indian villages joined together by spacious parks (the sacred groves) and stately avenues".

Finally in ancient India or for the matter of any other country the military camps were also contributory to the rise of great towns or

capital cities. This is the implication why 'Śibira' which is also a variety of Nagara and Durga. The un-settled condition of the political power in especially the early medieval and later medieval history of India fully speakes of this development. Datta also supports it, that is to say a king had to change his royal seat from place to place and where he settled for some years, there was built up the royal palace and the quarters of his entourage including the army and the military officers. The same circumstances operated to cause wealth and commerce, arts and literature, to follow thither and thus to develop the royal citadel into a magnificent metropolis. We all know how Udaya Singh, the Rana of Chitore, father of the great Pratap, defeated by Mohammadan arms under Akbar, took refuge in a sequestered mountain valley where he had already excavated a magnificent lake. Now he had his royal palace built on the embankment of this lake. The subjects followed their king and what followed was the gradual evolution of the noble town of Udayapur, extolled by all travellers for its splendid plan, architectural beauty, natural setting, and imposing grandeur.

CHAPTER II

VILLAGES, TOWNS AND FORTS IN GENERAL

With this very brief dessertation on the antiquity of town-planning in India and the origin and growth of Indian towns, we are now better equipped to treat this topic of the different and manifold types of towns including villages and forts. But before we do so, we may point out the discrepency and the non-correspondence of the section in this part with its companion in the Vāstulakṣaṇas. These first two chapters being introductory to start with canons, have been taken up, first though their counter-parts i.e. 'Grāma-lakṣaṇa', 'Nagara-lakṣaṇa' and 'Durga-lakṣaṇa' are introduced in the middle. Now let us begin with villages first.

VILLAGES

Village is a town in miniature and hence in India from the stand-point of planning there is no difference between a village and a town. A group of villages gives rise to a big town. Pataliputra is already cited as the most illustrious example.

There is however a great gulf between the canons of village-planning as given in the ancient texts of architecture and town-planning like Mayamata, Mānasāra etc. and the universal practice in India in regard to the most fundamental of the canons of town-planning namely the fortification. All the Śilpa texts unanimously suggest the fortification of villages as well. This is a bit over-doing. Some of the most selected villages may have some kind of fortification around them, otherwise the general practice, as the history also bears to the testimony, is that the villages never had fortification. When M. M. Dr. Ganga Nath Jha wrote—"The points of difference between a town and a village were that the town was protected by a ditch and a wall while the village was not so protected, the town was inhabited mostly by trades-people, in addition to the king and his appertenances, while the village was inhabited by agricultural people"—House-building and Sanitation in Ancient India, J. B. O. R. S. Volume I—he was not only simply echoing the practical and historical truth; but also Bharata's definition of a village which is an abode of many people such as Brāhmaṇas and others without any wall or ditch.

Now the question is: How to reconcile the precepts of the ancient masters with the practice of the ages. These ancient masters do not

take any vital difference between the planning of villages or towns. Naturally what holds good of a town just holds good of a village so far as the scientific and systematic planning goes, otherwise the law-givers have nothing to do with the haphazard growth when there is no body to guide the growth, supervise the plan or control the mal-planning.

Secondly though we maintain that the village is a natural unit and had a natural growth; but we have a tradition—vide Kauṭilya's Artha-Śāstra, that as per the administrative efficiency and the control thereof, he (Kauṭilya) advises the establishment of villages throughout the kingdom: "Either by inducing foreigners to immigrate (paradeśā-pavāhanena) or by causing the thickly populated centres of his own kingdom to send forth the excessive population (svadeśābhiṣyanda-vamanena vā) the kingdom may construct villages either on new sites or on old ruins (bhūtapūrvam abhūtapūrvam vā)".

"Villages consisting each of not less than a hundred families and not more than five hundred families of agricultural people or Śūdra caste, with boundries extending as far as a krośa (2250 yds.) or two and capable of protecting each other shall be formed. Boundaries shall be denoted by a river, a mountain, forests, bulbous plants (gṛṣṭi), caves, artificial buildings (setubandha) or by trees such as Śālmalī (silk cotton tree), Śamī (acacia suma) and Kṣīra vṛkṣa (milky trees)"

Thirdly the villages were also sometimes founded for military purposes—vide Ummagga Jataka translated by Yatawara p. 187, where we find that the Raja, previous to his starting on a military expedition gave orders to his ministers to build villages perhaps for the convinience of the routes of the expedition constituting the great highways of the country and also for trade and communication as well as for resting places of caravans.

Fourthly, we see, Bhoja, the celebrated author of the Samarāṅgaṇa-Sūtradhāra, though, silent about the grāma-lakṣaṇa in any details, does give us a great canon of national town-planning policy which echoes to some extent the ancient tradition of the Imperial Mauryas when Kauṭilya, the renowned Prime-minister was also doing the same thing. Bhoja from the stand point of National Planning in particular context to the laying out of the villages, towns etc. devides as we presently see, the whole country into Nagara and Janapada and takes the village as the Unit of National-planning.

The village as a unit of Town Planning in National Planning in ancient India.

This simple classification of the S. S. also hints at a very broad

fact of the then outlook on the planning character of the town as a whole. It is in relation to the National Planning of a country and a big country like India—which as a large continent—has so many diversities, but happily so integreted on account of its cultural and religious background that it always was one unit to both the sovereigns like Pṛthu and the Sthapatis, like Viśvakarmā. From the point of view of the national planning of a country like India—a sub-continent, the whole country was divided into three Rāṣṭras—the large, the middle and the small.

The unit of the national planning, according to this text is a village (the smallest category of a town). The territory of a larger unit of the country called the Superior Rāṣ'ra consisted of nine thousand one hundred and fifty four villages, while that of the middle Rāṣṭra contained in its dominion five thousond three hundred and eighty four villages and lastly, the small type of the Rāṣṭra had only one thousand five hundred forty eight villages of its territory. Thus the whole land consisting of these three sizes of Rāṣṭras having been laid out in villages; the town planning starts with the division of only the half the number of the villages into nine equal parts in all these types of the Rāṣṭras. This being done—in every part seven towns should be established (10. 83-87). This, in my opinion, was the selection of some large villages having all the qualifications for the natural development into a town. In this way (as per rough calculation) the superior Rāṣṭra would be having five hundred towns, the middle one having three hundred and the inferior one, eighty six only. This points out to one of the basic origins of towns—the large majority of the Indian towns had their origin in villages.

What is the idea underlying this canon of establishing towns only among half the number of each of the three types of Rāṣṭras? Perhaps it was in order to keep in tact the agricultural life going on and not to disturb the rural character of the country—the main characteristic of this ancient land. The urban civilisation has its virtues ahd drawbacks too; perhaps the town-planner of the S.S. does not want to get those evil characteristic of the city life penetrated among the simple folks of villages. Nothing can be said authoritatively, it is only my surmise. The text is not very specific. It gives only a broad hint.

Here two points emerge which need critical exmination. Firstly, has this kind of planning any remnant in modern India? Secondly, is there any other treatise in which such canons of town planning are equally laid down? The first problem is upto the sociologists to work

out. We may only point out that but for the Railway lines introduced in the modern times, the country was consisted predominantly of villages and it is not difficult to find a parralel to the large number of villages which emerge in these three types of Rāṣtras. We do find larger number of villages in existence even upto this time.

Now as regards the second problem, in Kauṭilya's Artha-śāśra, though we can not strictly speaking find a corroboration of the above principle; yet it gives a hint which is important in this respect. For defensive purposes, Artha-śāśtra inculcates the necessity of laying out fortresses scattered among the villages, viz. the Sthānīya in the centre of eight hundred villages, a Droṇamukha, in the centre of four hundred villages, a Kharvāṭika in the centre of two hundred villages and a Saṁgrahaṇa in the midst of a group of ten villages. This, in my opinion, is a military planning in contrast to the civic planning as advocated by the S. S. Kauṭilya, the powerful Prime-minister of Emperor Chandra Gupta Maurya, being more absorbed in his imperialistic views, did propound the germs of the civic planning, because in ancient India in the character of planning, there was not much difference between a village, a town or a fort. All were fortified residences.

With this general introduction to the grāmas, it is not difficult to surmize that the villages were really the detached human habitations principally occupied by the agriculturists. The upper class people especially the Brāhmaṇas also used to live in villages—vide Bāṇa's descriptionofthe Prītikūṭa village, the 'Brāhmaṇādhivāsa''. Accordingly in the Mayamata—vide Vāstu-Lakṣaṇa, there is a detailed classification of the Brāhmaṇa villages in accordance with the numerical strength of their population. Similarly villages are classified on so many other bases—a village of learned Brāhmaṇas is called 'Maṅgala' while that of noble ones 'Agrahāram' etc. There are detailed descriptions of villages of various sorts in the Mayamata and Mānasāra—vide V. Lakṣaṇa. Their planning is the scientific planning of a town, having all the salient features like shape, size, site-planning, street-planning, laying of highways, folk-planning, the planning of the centre, the chalking out the plots for temples, tanks etc. etc. and laying the rules of fortification as well as all other requirements. It is therefore needless to go into their details as the chapters ahead alloted to all these topics, conviniently may be taken to be applicable to the villages also. Let us therefore tabulate the different varieties of the villages as per the different authorities—vide the Vāstu-lakṣaṇa.

Viśvakarma-Vāstuśāstra. It describes as many as 12 types of

villages:

1.	Maṇḍaka	5.	Caturmukha	9.	Devarāṭ
2.	Prastara	6.	Pūrva-mukha	10.	Viśveśa
3.	Bāhulika	7.	Maṅgala	11.	Kailāśa and
4.	Parāka	8.	Viśvakarmaka	12.	Nitya-Maṅgala

Avoiding the details of these villages, a few remarks may be made. There is no hard and fast prescription about the fortification of the first three types. The streets are more important features which provide the laying out of the habitations. The next four are surrounded by ramparts and may be deemd as special habitations according to ancient canons of folk-planning. The Viśvakarma-grāma is a very large village and may be called a town. Its site is laid on the bank of a river. Here there is a provision for a palace of the king. The ninth variety is a temple-village as the name indicates. The tenth types is the commercial village and the eleventh is directed to be laid out on the sea-coast or on the slopes of a hill and it is also protected by ramparts. Lastly the Nityamaṅgala is as good as a big town having a population of about 6000 people.

Like the Śamarāṅgaṇa, the Aparājitapṛcchā also does not treat the villages in any details. Both these texts being contemporary show the medieval tendencies of urbanisation when big cities especially the capital cities were more prominent in the minds of the authors who were mostly courtiers and naturally were biased with the imperial set ups.

Mānasāra. According to Dr. Acharya's notice there is not much difference between a village, a town and a fort. All are fortified places intended for the residence of people. A town is the extension of a village. A fort is in many cases nothing more than a fortified town, with this difference, that a fort is principally meant for purposes of defence, while a village or a town is mainly intended for habitation.

"Villages are divided according to their shapes into eight classes, called daṇḍaka, sarvato-bhadra, nandyāvarta, padmaka, svastika, prastara, kārmuka, and catur-mukha.

Each village is surrounded by a wall made of brick or stone; beyond this wall there is a ditch broad and deep enough to cause serious obstruction in the event of an attack on the village. There are generally four main gates at the middle of the four sides, and as many at the four corners. Inside the wall there is a large street

running alround the village. Besides, there are two other large streets, each of which connects two opposite main gates. They intersect each other at the centre of the village where a temple or a hall is generally built for the meeting of the villagers. The village is thus divided into four main blocks, eack of which is again subdivided into may blocks, by-streets which are always straight and run from one end to the other of a main block. The two main streets crossing at the centre have houses and footpaths on one side of the street. The ground-floor of these houses on the main streets consists of shops. The street, which runs round the village, has also houses and footpaths only on one side. These are mainly public buildings, such as libraries, guest-houses, etc. All other streets generally have residential buildings on both sides. The houses, high or low, are always uniform in make. Drains (jaladvāra, lit. waterpassage) follow the slope of ground. Tanks and ponds are dug in all the inhabited parts, and located where they can conveniently be reached by a large number of inhabitants. The temples of public worship, as well as the public commons, gardens, and parks are similarly located. People of the same caste or profession are generally housed in the same quarter.

The partition of the quarters among the various sects cannot be said to be quite impartial. The best quarters are generally reserved for the Brāhmaṇas and the architects. Such partiality to the artists is not met elsewhere in Sanskrit literature. The quarters of the Buddhist and the Jains are described in a few lines. The habitations of the Cāṇḍālas, as well as the place for cremation, are located outside the village wall, in the north-west in praticular. The temples of fearful deities such as Cāmuṇḍā, are also placed outside the wall".

Mayamata and Śilparatna. The above description of villages in the Mānasāra is base on the respective shapes, the method of street planning, folk-planning and temple-dedication which, as we shall see, is the stereo-typed canon of town planning in ancient India. Hence our previous statement that according to the Mānasāra there is not much difference between a village, a town and a fort, gets supported. The detailed description of the Nandyāvarta, as reproduced in the Vāstūlaksaṇas is evidently very copious.

The author of the Mayamata and Śilparatna however, base their classification of the villages mainly upon planning of streets into:—

1. Daṇḍaka
2. Svastika
3. Prastara
4. Prakīrṇaka
5. Nandyāvarta
6. Parāga.
7. Padma, and
8. Śrīpatiṣṭhita,

N. B.—Kāmikāgama divides villages into fifteen classe and after enumerating all the verieties named by the Mānasāra and Mayamuni cites four more, to wit, Sampatkara, Kumbhaka, Śrivatsa and Vaidika. Thus as many as 15 types emerge.

Daṇḍaka. Literarlly means a village that resemble a phalanx or a staff. Its streets are straigh and cross each other at right angles at the centre, running west to east, and south to north. *Sarvatobhadra* is oblong or square and may be divided into inter-lineal chambers after Maṇḍūka or Sthaṇḍila. *Nandyāvarta* is just like sarvatobhadra and is very auspicious. It is abode of bliss and is best suited to Brāhmaṇas. The text makes so many other alternatives with folk-planning like *Maṅgala*, *Pura* and *Agrahāram*, needless to be dilated upon (see Datta's book). *Padma* or *Padmaka* according to the text has five varieties. Its shape is just like lotus—vide illustrations in the end. *Svastika* has got a special feature that its streets should be planned in conformity with the figure Svastika. *Prastara*—etymologically means a village resumbling a couch. The Mayatamata directs that it is interesected by three streets running from east and west by several transverse roads numbering from three to seven. *Kārmuka*, is bow-shapped—vide illustration in the appendix and hence its shape is either semi-circular or semi-elliptical. Types of town like Pattana, Kheṭa or Karvaṭa are planned after this shape which as we shall see are predominantly inhabited by Vaiśyas, traders-cum-laboureres and lower class people respectively. The *Kārmuka* plan is suited generally to a reparian site or a sea-shore. *Caturmukha* is square or oblong lying east-to-west-wise so that its walls are also of similar shape. *Prakīrṇaka* has five varieties according to the Maya text. It really means a 'cāmara' a fan made with big chowries (hairy tails) of yaks fastened to a handle. *Parāga*, as its nomenclature implies is of cob-webbed shape and has a such large number of streets that facilitates the traffic and locomotion of the village. Śrī-*pratiṣṭhita* has a radical significance in as much as the Goddess of Fortune, Śri is enshrined and secured here. *Sampatkara* as its etymology connotes, is a very auspicious village and secures wealth and property *Kumbhaka* has its shape like a pitcher as the word denotes. It is either circular or polygonal. The streets run parallel to the centre. Lastly *Śrīvatsa* and *Vaidika* are also of the auspicious varieties, have the common planning but denoting some trait or the other as their names indicate.

This is only a very meagre account of these villages, the details may be seen in the Vāstulakṣaṇa, appended in the end. It may however be remarked that one feature of special significance in all of

them is that the number of northerly streets in all types far exceed that of the easterly streets which means that the villages were alcngated east to west and east to west streets were longer so that winds could not blow up clouds of dust while the buildings were open to pure and ventilation which in India generally runs from North to South, and South to North. Further in all these types the principal requirement, as surmized by the detailed accounts of these villages, is that they used to be laid out round a village shrine adjoining a bank and a flower garden thus making them all more or less garden-villages as abound in the South. Sri Vankatarama Ayyar furnishes these details in his work.

TOWN OR CITIES

Viśvakarma-Vāstuśāstra, as we have already taken its notice vide chap. VI, *describes as many as twenty types of cities. These may be* tabulated as hereunder—vide also V. Lakṣaṇa.

1. Padma	7. Caturmukha	14. Jala-nagara
2. Sarvatobhadra	8. Śripratiṣṭhita	15. Guhānagara
3. Viśveśabhadra	9. Balideva	16. Aṣṭamukha
4. Kārmuka	10. Pura	17. Nandyāvarta
5. Prastara	11. Devanagra	18. Rājadhānī
6. Svastika	12. Vaijayanta	19. Mānuṣanagara
	13. Puṭabhedana	20. Girinagara

These names as is evident, include also those eight type-designs like Padma, Svastika etc. which were taken notice of in the previous section on villages. The other types are quite familiar. The *Vaijayanta Nagara* is said to be situated at the sea-coast, on the bank of a river or at the edge of the forest, *Puṭabhedana* in V. P. is described as having sites found naturally formed with the contour of a concha which are chosen for this city. The *Girinagara* as its name signifies, must be built on the top of a hill and similarly the *Jalanagara* is in the midst of a lake or in the midst of a big river. *Guhā* is constructed within a cave, leading upward, downward or horizontally or in intermediate directions. We cannot expect any large number of dwellings there except a king's palace or an arsenal or a treasury or at the most a cantonment. The *aṣṭamukha* may be deemed a special variety because its shape is circular with eight entrance-gates As regards the last variety, the *Rajadhani* town, it is a capital city where tributory princes, ministers and commanders have all their residences and the nucleus must be the Imperial Palace, with all its appretunances and vast paraphernalia of establishments.

Samarāṅgaṇa-sūtradhāra.

After a brief survey of the site of a town, the text takes up the different varieties of the towns, and the scheme of the layout. The principal catagories of a town are three Pura, Kheṭa and Grāma (Ch. 10. 79-80). The other works like Mānasāra and Mayamata speak of as many as eight varieties of towns and villages, but the difference is not in kind but in quality—the particular shape or form in which a village or a town is planned. But the general description of these given in the Mānasāra text is applicable more or less to all these classes of towns—Nagara, Pura, Kheṭa, Kharvāṭa, Kubjaka and Pattana etc. (M. Chapter 9 and 10). The position is that the S. S. knows all the classes of towns but has adhered to the convenient classification of Pura, Kheṭa and Grāma.

The text lays down that the distinguishing criterion between these different varieties of towns is the relative measurement of the Viṣkambha and the Sīmā distances. Half the Viṣkambha of the town is Kheṭa and half of that of the Kheṭa is Grāma. Kheṭa can be laid out on a distance of one yojana from the town proper, the pura. Similar is the distance of Grāma from the Kheṭa. Between two villages there must be a distance of two krośas (gavyūti). We know that the first pre-requisite in any town planning is regional planning the planning of the region, the Viṣaya or Janapada (see its meaning ahead). Naturally, therefore, all the varieties of towns came under a viṣaya or janapada. Pura or Nagara, originally was the capital town and janapada, the rest of the viṣaya. It may be said that in the time of the S. S. there were more than one Nagaras in several of the Janapadas. Hence the Simā-distance of viṣaya is two Krośas, half of it is of a town, half of that of the town is of a Kheṭa and half of that of the Kheṭa is of a grāma.

Now Town (Pura) is of three classes, large, medium and small. The criterion of the classification is their relative size.

The large one has a length of four thousand cāpas. (4000 sq. yds.)

The medium one of two thousands chapas. (4000 sq yds.)

The smaller town has only a length of one thousand cāpas. (2000 sq. yds.)

As regards the breadth of a town the text says (ch. 10-3) that one-eighth, one-fourth or half of the length should be the breadth in practically all the categories of the towns.

The other categories of the town not well brought out but only hinted at in an enumerative form in the chapter entitled 'Nagarādi-Sañjñā' are as follows:—

I. Rājadhānī—The Capital of the king.

It is only a big town with the qualification that it is a seat of the government or more fittingly the abode of a king.

2. Śākhānagara.

All other categories of towns besides the Pura, the town proper and the capital according to the S. S. are Sākhānagaras and their sub-varieties. Among them a brief enumeration of the following types are made.

(i) Karvaṭa—smaller town.
(ii) Nigama—smaller than Karvaṭa.
(iii) Grāma—smaller than Nigama.

3. **Special towns.**
(i) Pattana—the second residence of the king.

(ii) Puṭabhedana—it is a Pattana, in addition to being a commercial centre.

Apart from these, the land and the country being vast, there are so many other human habitations, some of these being in the forests or on the outskirts of villages and towns and they are Pallīs and Pallikās.

All the inhabited and uninhabited land may be classified into only two broad divisions, namely Janapada and Nagara.

The word Nagara should not be taken in its individual capacity, but of a group formation. Hence a particular country from the stand-point of architectural planning (of course—political, economical, commercial and cultural and religious considerations do crop up and influence it) may be divided into Nagara and Janapada, and we have already taken due notice of the national policy of town-planning as enunciated by the gifted author of the most standard compendium of architecture, the Samarāṅgaṇa-Sūtradhāra, where village forms the unit of National Planning—the planning of the country as a whole.

Aparājita-pṛcchā. The text has got some innovations. Like the V. P. it also describes the following twenty types of puras or towns or cities having their peculiar shapes.

1.	Mahendra	8.	Svastika	15.	Uttarā
2.	Sarvatobhadra	9.	Pārśvadaṇḍa	16.	Dharma
3.	Siṁhāvaloka	10.	Jayanta	17.	Kamalada
4.	Vāruṇa	11.	Śrīpura	18.	Śakrada
5.	Nandyāvarta	12.	Rūpamardana	19.	Mahājaya
6.	Nanda	13.	Snāha	20.	Pauruṣa
7.	Puṣpaka	14.	Ditya		

N. B. Their shapes vary with monifold shapes square etc. etc.

Mānasāra. "According to the Mānasāra, it appears that the dimensions of the smallest town-unit are 100x200 daṇḍas; the largest town-unit is 7,200x14,400 daṇḍas. A town may be situated from east to west or from north to south according to the position it occupics. There should be one to twelve large streets in a town. It should be built near a river or a mountain, and should have facilities for trade and commerce with the foreigners (dvīpāntara-vartin). Like a village, it should have walls, ditches and gates, drains, parks, commons, shops, exchanges, temples, guest-houses, colleges, etc. For purposes of military defence, towns are generally well fortified.

"Towns are divided into eight classes: rājadhānī-nagara, kevala-nagara, pura, nagarī, kheṭa, karvaṭa, kubjaka, and pattana. The distinction between them is slight, the general description given above being applicable to all. But it may be noted that the city called pattana is a big commercial port. It is situated on the banks of the sea or a river and is always engaged in exchange and commerce with foreigners who deal specially in jewels, silk clothes, perfumes, etc., imported from other countries (dvīpāntara)."

Mayamata. As regards the classifications given in the Mayamata and Śilparatna, there is not much difference with what we have noticed in the one adduced from the Mānasāra. All these three texts belonging to the same school of Indian Architecture prescribe practically the same types. All these taken together (including Kāmikāgama and Īśānaśiva-gurudeva-paddhati), may be tabulated as hereunder and a brief notice is also called for:

1.	Nagara	5.	Kheṭa	9.	Droṇamukha
2.	Rājadhānī	6.	Kharvāṭa	10.	Koṭya-kolaka
3.	Pattana	7.	Śibira(senāmukha, Skandhāvāra)	11.	Nigama and
4.	Durga	8.	Sthānīya	12.	Maṭha or Vihāra

Nagara. Pura and Nagara may be taken synonymous. Nagara is surely a fortified town as its etymology signifies—immovable, imp-

lying permanence and strength with reference to stone walls etc. The Vedic puras were mere forts, while pura as in Tripura and Mahāpura was much bigger (Tait. Sam. VI 2, 3, 4, : Kāth. Sam. XXIV, 10; Sat. Bra. VI, 3, 3, 35; Ait. Bra., II, 11; Mait Sam. III. 8, 1). Thus pura might have been the prototype of pura, the developed city, and Nagara the full-fledged capital city. The dimensions and other layouts in regard to gates, towers, buildings, markets, temples, military defence etc. etc. may be purviewed in the Vāstulakṣaṇa.

Rājadhānī. Mayamata vide V. L. gives a glorious description of the royal capital with its imperial castle. It is a modern meterpolis. Śukrācharya's description has something more to add. It must have the sabhā or Council Hall in the centre.

Pattana. It is a large commercial port, situated on the bank of a river or sea. It is frequented by traders from distant lands (divīpāntarāgata, deśāntarāgata) coming on commercial mission. Vaiśyas predominate the population and it is replete with jewels, wealth, silk prefumery and other articles.

Durga. It is a fortified town and we shall see its details in its proper place.

Kheṭa. It is a small town situated on the plain near a river or in the forest by the side of hillocks and is girt with a mud-wall. Its main population consists of Śūdras or labouring class. According to the Śilparatna, if such a town is thrown out by local industries, such as mining, it is known as Śākhā-nagara.

Kharavāta. It is exactly similar to a kheṭa and is also defended with a girdle of wall and is located in the country side. According to Kauṭily it is situated in the centre of two hundred villages.

Śibira. It is a military encampent—vide Bāṇa-bhaṭṭa's description of Skandhāvāra of Harṣa Vardhana. It is also laid out when a king was out on an expendition of fresh conquest and annexation. It has two more sub-varieties *Senāmukha* and *Skandhāvāra*. The former is like a military base, rear station where the military staff carry on their duties away from the battle-field. According to Mayamata (V. Lakṣaṇa) it may also be suburban town a little away from the main city guarding the latter at is main approach and this commands a strategic situation. It is like our contonments in the modern times. The latter variety is of the same category with the difference that rivers, mountains and woods form its defence. According to the Śilparatna it is nothing but a camp of the soldiers not very remote from the actual battle-field.

Sthānīya. According to Kauṭilya, there shall be set up a sthāniya fortress in the centre of 800 villages. It is like commissionaries or muffasl towns and head-quarters of the districts or the divisional officers. Śilparatna's definion supports this deduction.

Droṇamukha. It is a market town frequented by traders, lying on a river bank or sea-shore, generally at their confluence, known also as Droṇīmukha. It is a harbour. If it were populous place in the midst of villages it is termed as Viḍamba.

Katmakolaka. It is a popular settlement in a hilly or wild tract.

Nigama. It is a market mainly of artisans though other castes also live.

Maṭha or Vihāra. The Śilparatna has a vivid description of this last but not least importance type of twon. It is a university-town. called Vidyāsthāna, Maṭha or Vihāra. Literally it means students quarters or college. Hence it is a residential university where not only the learners board and lodge but religious intinerants (Parivrājakas) or monks also reside. Savants from foreign lands also repair to the place, where there is provision for (free?) supply of food and water. It is defended against hostile attack. The student celibates who preferred religious pursuits and philosophical lore to a worldly life used to put up at this university town, it may be, in the capacity of professors. "And as the Brahmanas became the custodians of Aryan traditions and culture, the Āśrama or Brāhmana village developed in to the university town to which Aryan youth of the twice-born classes went for instruction"—Havell.

Thus closes the catalogue of all principal types of towns as are more notable for their plans in the renowned Śilpatexts like the Mānasāra and Mayamata. But some notice of the temple-cites already taken before may be prolonged. They are our proud glory and represent our national culture embodiment of the age-long heritage, both in the traditions of art and religion. Temple-cities are generally those which had their origin in and evolved out of holy shrines with the spread of their fame and influence.

Their peculiarities consist in the several successive rings of circumambulatory paths that writhe round and round their central plots whereupon the temples, their nuclii, are generally situated. These attest the successive stages of their growth and development. Another peculiar characteristic of the temple-cities lies in a good number of minor shrines set up in them. For many saints attached

to the old temples set up their revered memory. It should also be noted that followers and preachers of creeds other than that represented by the original temple repair to the place either to measure their religious strength or from inconoclastic motives. A city like Benares offers the best forum for proselytization. Whatever may be the outcome of this trial of strength, the city in consequence, soon outgrows its temple aud develops a distinct corporate life. The new immigrants also settle here and raise their own monasteries."

Similarly some remarks on Garden-cities are also needed to complete this picture of our temples and towns. Garden-cities constituted a compromise between a city and a village and represented a harmonious combination of human art and soul-vivifying nature. In ancient India tanks and lakes used to be the nucleus of this development. The triple companionship—plants, animals and men is our very ancient tradition. The herd of cow, the temple orchards coupled with tanks overgrowth of shady trees and the mighty banyan or the sacerd Aśvatha and men and women sitting under their shed enjaying the cool breezes and tending their cattle what India had left to our memory in her most glorious days. No town is complete unless it is trimmed with sheds for drinking water, shrines and halls, tanks, gardens and the like—vide Yukti-Kalpataru of Bhoja—'Prapā-maṇḍapa-kāsāra-kānanādyupśobhitam'. In these garden-cities there is symmetric distribution and allocation of parks, gardens and tanks; trees are reared in rows along both sides of the streets, sometimes in the middle, sometimes in two or three rows on the streets thus segregating the different currents of traffic. Again every house has its own garden in the front. Some longitudinal portion of the street is sometimes kept evergreen with grass and installation of factories in large number is prohibited or discouraged.

FORTS OR DURGA

As fortified cities, the eight-fold varieties of the Mānasāra text śibira etc. have already been taken notice of. For purely military purpose their classification varies with the various texts.

Viśvakarma-Vāstuśāstra. It describes the following twelve types:—

1. Giridurga	5. Daivadurga	9. Kūrmadurga
2. Vanagurga	6. Ekamukhadurga	10. Pārāvata
3. Jaladurga	7. Dvimukhadurga	11. Prabhu and
4. Īriṇadurga	8. Caturmukhadurga	12. Yuddha

"Forts are of 12 kinds according to the site chosen. The first is Hill fort. The second is protected by forests. Underground passage are

provided for this class of forts. The third type is either in the midst of the sea or large rivers. The fourth is the fort in the desert country. Fifth is a natural fort i. e., a place in which formations like ramparts have been formed by nature. It is called Daivata fort. The next three types are built on the banks of rivers or at the sea-coast. They are provided either with a single gate, two gates or four gates as safety will allow. The ninth is called the tortoise fort. It is generally intended as a trap for the enemy. The site is either the middle of a forest or the foot of a hill. It is provided with concealed approaches and spring traps work by concealed machinery. Five or six ramparts protect the place and it is studded with concealed marshes and mire. This type of fort is generally constructed at short notice to entrap the enemy and is demolished soon after. The tenth is a well-defended place of safety for temporary rest in the midst of a fierce battle. The eleventh is a well-provided fort with strong defence in unapproachable ground either in the midst of a forest, a hill or other place with natural defence. It has but a single gate and is protected by a series of a dozen Prākārās (walled enclosures). There are structures in the walls for sounding the alarm when necessary. Such structures are known as Karaṇas (the ears of the fort). Gates within gates with double latches protect the place and the fort is well provided with all provisions for a long seige. The twelfth type is called War fort. It is especially intended as a place of safety from which to attack the enemy and it has all structures for offence and defence with various weapons. Hidden pathways, and underground passages with stair cases abound. It is sometimes allowed to be used by citizens for residence or cleared of them at the king's pleasure"—cf. Int. to V.V.S.

The expatiations on Durga by the S. S. have already been noticed vide the representative Vāstu texts. But Bhoja in his Yukti-kalpataru, however has a better classification. He divides the forts under two main heads: (1) Natural (akṛtrima—literally not artificial) and (2) Artificial. The natural fort is one which is rendered inaccessible to hostile encroaches by its very situation. Secondly, the advantages of its natural defences are such as deserts, rivers and the like. A kingdom which lacks such defensive qualifications should make provision for artificial forts i. e. those which are protected by ramparts, surmounted by embattled parapets and girt round by large ditches. Practically all the Śilpa-texts do not adhere to this more rational classification. They classify Durga in a mixed way.

Mānasāra & Mayamata. "Forts are first divided into eight classes, called śibira, vāhinī-mukha, sthānīya, droṇaka, saṁviddha or vardha-

ka, kolaka, nigama and skandhāvāra. There is a further division of these forts according to their position. They are known as mountain-fort (giridurga), chariot-fort (ratha-durga), divine-fort, (deva-durga), marsh fort (paṅka-durga), and mixed fort (miśra-durga). The mountain fort it subdivided into three classes, according as it is built on the top of the mountain, in the valley, or on the mountain slope. All these forts are surrounded with strong walls and ditches. The wall is made of brick, stone and similar materials. It is at least 12 cubits in height and its thickness at the base is at least 6 cubits. It is provided with watch-towers."—A. H. I. & A. p. 104. **Mayamata's** list corresponds to this as given in the Mānasāra.

Kauṭilya's Arthaśātra and Śukranītisāra. The accounts of fort-laying given in the two renowned treatises, is also worthy of notice. In the former, chapter XXIV. para 1, p. 51, lays down the indictment on establishing forts in the kingdom and of the contents of chaps. XXIV, XXV and XVII taken together can give you a very good account of fort-planning reminescent of the then State-policy under Imperial Mauryas. They provide a very interesting description of the plan and other architectural details. There are nine principal varieties of forts and if we add all the sub-varieties they come to as many as nineteen varieties acccording to the Śilpaśāstras. Let us dwell a little more on these varieties:

1. **Mountain fort.** Its three sub-varieties are already refered to, they are called according to the Mayamata—Girimadhya, Giri-pārśvaka and Giri-śikharaka, the last is also called Prāntara and is most auspicious. The forts of Chitore and Lanka illustrate this type. The town of Bundi may be cited as an example of the second type, the Giripārśvaka and the first is really a Guhā and Jaipur and Udaipur may be said to be its examples as Guhā type of mountain fort is situated in a valley secluded and made inapproachable by an encircling range of mountains with natural passes like a defile.

2. **Water fort.** It is rendered difficult of access by natural circumfluent water. It has also two sub-varieties—antar-dvīpa (island fort) which in the words of is Śukrāchary is a nadī-durga as on its both sides river flows. It may be built in the midst of a sea also. It is in a way an insular town or fort of which, in the opinion of Sri B. B. Dutta, modern Bombay, ancient Ceylone, Srirangam and Kaveripum—pattinam may serve as the best examples. The other variety is called

sthala-durga which is situated on a high land girt round stagnant (as opposed to flowing) fathomless water. It may be laid out in the midst of a lake or a vast tank.

3. **Desert fort.** (Dhānvana) is in the midst of a desert devoid of any water. 'Nirudaka' and 'Airaṇa' are its principal varities. The former is characterized by barren tract, latter made barren by and saturated with salt or brine water. In both the cases an oasis is turned into a fortified town. In the opinion of Sri Datta many principalities in Rajasthana will fall under these heads.

4. **Forest fort.** (Vana-durga) has also two sub-varieties 'Khāñjana' and 'Stamba-gahana' the latter termed by Manu as Vārkṣa. Khañjana is hemmed in by fens variegated with thickets and thorny shrubs while its companion is environed by a dense jungle of lofty trees.

5. **Earth fort.** (Mahī-durga). It has three species—'pārigha', 'paṅka' and 'mṛd-durga' and they are quite celar cf. details—vide V.L.

6. **Man-fort.** (Nṛdurga). Its defence lies in the strength of man-power. It is also sub-divided into 'Sainya-durga' and 'Sahāya-durga', which are quite clear.

7. **Mixed forte.** (Miśra-durga) is a combination of Giri-durga and Vana-durga.

8. **God's fort.** (Daiva-durga) may be defined as a fort unapproachable on account of its vary natural circumstances like Mt. Everest. Others take it as a fort whose entrance and exit are guarded by gods, Rākṣasas, Vaitālas, ghosts etc. and which has been made inaccessible by hail-storm, constant typhons and frequent showers and which is protected by spells, charms and incantations. According to the Śilparatna vide V. L. however that fort is called daiva-durga, upon whose walls are installed the gods Indra, Vāsudeva, Guha, Jayanta, Vaiśravaṇa, the Twin Aśvinis, Srimadirā (not Śrimandira as Datta takes it—as Śrīmadirā is another name of Pārvatī—vide my H. C. Ico. and Painting) and Śiva, Durgā, Sarasvatī.

9. **Kṛtaka.** Lastly the Kṛtaka is the artificial fort as distinguished from the foregoing varieties.

Of all the forts the Mountain fort is the best.—" सर्वेषामव दुर्गाणां पार्वतीयं प्रशस्यते." Śukrācārya also arranges the forts in order of merit as follows: Giri, Jala, Dhanu, Vana, Pārikha, Airaṇa and Pārigha. With all these special characteristics of each of these the general characteristics in the words of the author of the Śilparatna 'all strong-

holds worth the name must be invariably protected by walls and according to Muni Maya all forts must have unfailing stores, provisions, arms, water arrangements, to be girt round by lofty gigantic trees, secured by walls and furnished with many guarded gates. The absence of bulwarks suggest that the Aryan town-planners were not slow to appreciate the local circumstances, and they took advantage of the natural barriers and, with slight manipulation and modification, turned them into best fortifications where rivers and oceans, mountains and rocks, trees and bushes, deserts and swamps were made to play important parts of their own.



III CHAPTER

PRELIMINARIES OF TOWN PLANN

This subject of the preliminaries is principally consisted of surveying of the region or regional planning, the site-planning including the examination of the land, testing of the soils and the selection of the site thereof, the levelling of the ground or Bhūkarṣaṇa along with the germination on the plot and offerings, the Balidāna etc. etc. Accordingly let us begin with the regional planning, the first pre-requisite of the town-planning.

(a) **Regional Planning** : The planning of a town, a habitation, villages, fort, city or any other variety of group-residences, should take into account its location first—situation and surroundings, climate and soils, vicinity and frontiers. To put it in one word, the Town Planning pre-supposes the planning of the country, the Deśa or more correctly the regional planning—(the deśabhūmis) i. e. surveying the region on which the town is to be planned out.

The first essential of town-planning, according to the S. S., is the survey of the soil conditions and their examination. In its chapter entitled 'Bhū-Parīksā', the 8th, the S. S. divides the land (deśa) into three varieties:—(1) Jāṅgal (2) Anūpa and (3) Sādhāraṇa (S.S. 8.2). The land almost barren, where well water is too far to be accessible, the wind is dry, hot and violent, and the soil is black in colour is called Jāṅgala. The region, opposite to the one described, full of water easily accessible from the wells, with beautiful landscape and cool climate, fish and meat in abundance, with rivers all round, plentiful trees, lofty and full of verdure is called Anūpa.

A combination of these two characteristics, viz. climate moderate—neither too hot nor too cold, is called Sādhāraṇa, or i.e., having common qualities of both of them.

The above classification is with reference to climate and geological formation. The S. S. further classifies the land (Deśa-bhūmis) into as many as sixteen varieties based more or less on human and cultural as well as natural factors. They are as follows :—

1. Bāliśasvāminī — Easy to be administered and inhabited by good people—bhadrajana.

2. Bhogyā — Fit for all worldly enjoyments, everything in plenty and people glowing with riches.
3. Sitāgocararakṣiṇī — With adequate natural resources like rivers, lakes and mountains and well-knit frontiers.
4. Apāśrayavatī — With fearful surroundings and devoid of human habitations.
5. Kāntā — With charming and beautiful landscape alround.
6. Khanimatī — Abundant in mineral resources.
7. Ātmadhāriṇī — With abundance of freedom and hard to be administered.
8. Vaṇikprasādhitā — With commercial centres and trades in full swing.
9. Dravyasampannā — Rich in trees of superior quality.
10. Amitraghātinī — With people in complete accord to each other, living in well divided Janapadas.
11. Āśreṇīpuruṣā — With no captives and inhabited by gentle folk.
12. Śakyasāmantā — Where Sāmantas are lethargic and reluctant towards the stātecraft (Mantra and Utsāha etc.).
13. Devamātṛkā — With agriculture blooming, the rivers in plenty; not depending on the rain water.
14. Dhānyā — With easy, excessive and plentiful harvests, and where ploughing is not necessary.
15. Hastivanopetā — Where mountains are on all sides, and where the forests are full of elephants.
16. Surakṣā — Unconquerable by the enemies on account of the natural barriers.

(b) Land and Landscape suited to an ideal town.

A very beautiful delineation (vide the text Ch. 8. 27-35 and V.L. cf. the Desa etc. the Land and Landscape), upon the natural surroundings and situations, the land and the landscape suitable for the laying out of a town, or kheṭa or a village etc. is found in this text. The sum and substance of this prescription of the land and the landscape is that for an ideal town the surroundings and situation, land and landscape must consist, in the first place, of hills and mountains serving as natural frontier not easily to be crossed. From the security point of view, this is an invaluable asset. But it may be pointed out that on

the plains—and the plains abound in our land—this rule can not be adhered to everywhere and hence fortification was needed. Practically all the ancient towns and cities on the plains were fortified towns. That is why strictly speaking, there was not much difference in the views of ancient manuals like Mānasāra and Mayamata on the layout of the towns and the forts.

The second requirement is that an ideal town must have a green belt of forests where tall trees and plants full of verdure and flowers are found in abundance. This is necessary, not only from the point of view of healthy climate but is also conducive to the growth and maintenance of the population requiring fruits, fuel and fodder. Moreover, the natural scenery of this green verdure must add to the beauty and the grandeur of the town for which in the laying out of the modern garden cities so much money is spent.

Thirdly, for life, water is a fundamental necessity. No life can subsist without a good natural supply of water and hence the rivers, lakes, ponds and tanks are indispensible pre-requisites for the laying out of a town. It may be noted here, that the most potent factor giving rise to the towns in ancient India, was this natural factor—the presence of water in abundance. Therefore, practically all the important towns and cities of ancient India rose either on the bank of a river or on the sea shore. Moreover, in India rivers like Gaṅgā and others have always been regarded as sacred and, therefore, the places on such sacred rivers, primarily a hermitage or a temple, gave rise to big towns. That is why we have all our famous Tīrthas, sacred places of pilgrimage situated on the banks of the rivers or on the sea shore.

The abundance of water and trees and forests presupposes a fertile soil condition which is suited for a good harvest. Thus these are the prime considerations according to Samarāṅgaṇa for the laying out of an ideal town. We know that life on this earth is an inter-connected and inter-dependent natural process, where plants, cattle and water play their most vital role.

(c) Geological Survey.

So far we have been surveying the land to be selected for the town-planning from the geographical stand-point. The ancient texts on Vāstu-Śāstra are full of details aiming at the physiographical or more correctly and more characteristically the geological survey of the land too. In these days of advanced stage of the Geological science, this may sound simply astounding, but the fact is otherwise. The different varieties of

the soils having different different *colours*, *smells*, *sounds*, *touches* and *tastes* could not have been ascertained unless the physiographical and geological surveying and investigations had been carried out. The S.S. allots the four soils of white, red, yellow and black colours to the four castes respectively (8.48). This allotment may be symbolic, the colours of the ground answering the colours of the respective castes—the Sanskrit term for caste being 'Varṇa' literally colour. Similarly, from the point of view of the *taste* of the soil, sweet, astringent, pungent and bitter tastes have been allotted to the respective four castes. But it may be noted here that these prescriptions are not mandatory or obligatory they are only recommendatory (8.49).

Again in every text on Vāstu-Śāstra, some account of the unfit soils is found (8. 52-62). The S. S. directs that the soil having the following characteristics should be avoided for the planning of any town: one, which is full of ashes, charcoal, skulls, bones, husks of corns, hair, poison, stones; similarly one abounding in rats, rubbish ant-hills, and gravels. Again lands which are hollow, dry, zig-zag, having decayed wood, and subterranean pits, barren, with water currents moving to the left, devoid of rains, where trees are bitter, thorny, useless, dry, devoid of fruits, abounding in birds eating raw flesh and where worms are also found, are not to be selected; where any religious piety or food, drink, vanish like the sounds of a tūrya (musical instruments); where the river flows towards the East; which smell like oil or a dead body; which have a smoky colour, mixed colour or no colour, dry colour—all these also must be rejected. From the point of view of *taste*, bitter, saltish must be avoided. Land which is sharp and dry, too hot or too cold to the touch, should be rejected. Land that has the *sound* of a jackal, camel, dog or donkey or the torrent or a cruel sound like that of a breaking jar must also be avoided (these sounds are simply symbolic of the sound of the soil). The import of all these directions regarding the selection of the ground for town-planning is that impurity, insanitation, sterility or barrenness, hollowness, irregularity of sites and plots must be avoided at all cost, so that laying out of the buildings and the planning of the roads are not affected and the stability of the structures erected on them is ensured. All this is possible when well-planned soil tests and geological surveys are carried out. Again this shows that not only the fertility and the solidity of the ground are ascertained, but also the mineral resources were tapped and the building materials explored. Again this is also necessary from the point of view of the stability of a town, situated on the bank of a river, in order to ward off any possible flood or erosion. This brings us to another point of consideration in the selection of the site,

namely, the *proclivity* of the ground. The S. S. (8.66) directs that the ground should have its *proclivity* either to the North or to the North-East or to the East proper and it should resemble a mirror (in its elevation in the middle). The S. S. in two other places also takes this topic of *proclivity* and *declivity* of the ground. In its chapter entitled "Gṛhadoṣa" (the 48th) it opens with the direction that the ground slanting towards the direction presided over by Varuṇa, Yama, Marut, Fire or if depressed in the middle, is unfit and brings poverty, disease and death. More pointedly, it says that a ground having its declivity towards the quarter of Fire, suffers from the fear of fire, towards the south from death, towards South-West from ailments, towards the West from the destruction of the grains and wealth, towards North-West from foreign residence, quarrels and ailments and the one sloping in the middle is the worst of all and is instrumental in bringing total destruction. Again in its 20th Chapter in connection with the raised or low grounds in the vicinity of the house, it has laid down that a house having a low ground on the left and raised on the right, is beset with many ills (cf. wrong orientation—it will be insanitary). Similarly, if it is low on the right and raised on the left that too is unfit. Further, hollowness and a low ground at the back are also bad. Only the ground with westward slope and frontal projection (as much as it can be) is the fittest one. In his Yukti-Kalpataru (vide Nagara-racanā-śāstra verse 136-7), Bhoja is more specific. He says that the ground should be elevated in the middle and slanting towards the East and North-East. A Southern declivity is responsible for all insanitation and brings diseases; a declivity towards North is conducive to wealth, while a westward slope destroys peace and prosperity; a depression of the ground in the middle conveys poverty, while a depression on the border brings in happiness.

Practically all the Śilpa-Śāstras are unanimous in extrolling an easterly declivity of the ground. It offers the full benefit of the morning sun. After the site was chosen, the four points of the compass were fixed by means of a gnomon (Śaṅku).

The purification and consecration of the ground, though much elaborated in manuals like the Mānasāra and the Mayamata, are conspicuous by their absence in the S. S. and some remarks may be made in the end of this chapter.

These elaborate precautions in the selection of the site for the town-planning as we find in these texts point out that in ancient and

medieval India, town-planning was probably the concern of the State. Such a wide range of the prescriptive directions could not have been within easy reach of individual resources. Town-planning seems to have been a social function in which the society as a whole took part.

Havel (vide A Study of Indian Civilization pp. 7.8) simply relates the truth when he says : " It will probably be revelation to modern architects to know, how scientifically the problems of town-planning are treated in these ancient India's architectural treatises. Beneath a great deal of mysticism which may be scoffed at as pure superstitions, there is a foundation of sound common sense and scientific knowledge which should appeal to the mind of the European expert ".

So far we have been busy with the architectural preliminaries, there are however certain important injunctions in the Śilpa-texts for ritualistic preliminaries, some of which like Halakarṣaṇa may be deemed as helpful in the context of the architectural preliminaries as well. Hence some remarks may be made in the words of Sri B. B. Dutta, T. P. in A. I.-pp. 60-62 :

" The selection of the ground over the Sthapati (the civic architect) now turns his attention to its purification and consecration. The rites to this end prescribed both by the Mānasāra and the Mayamata are almost identical and they are these :—" In an auspicious moment the Sthapati after pious ablutions, clad in fresh garments, and adorned with garlands of flowers, in the presence of the assembled people, makes an offering of fried paddy and white flowers to the deities and with invocations for the welfare and prosperity of the builder (or of the architectural enterprise he is going to undertake), he sprinkles consecrated waters in all quarters, and drives away the evil spirits that may haunt the place. Then he, guiding the oxen, draws furrows across the ground towards the east or the west, the grass and the weeds having been plucked out in the first instance. Usually he turns the first furrow and thereafter the Śūdrás hired for the purpose complete the ploughing of the ground ". A new plough was specially made for the occasion. The fourth chapter of the Mānasāra deals with the construction of a plough and with ploughing. The newly made plough was yoked to a pair of oxen, strong and without blemish, with gold and silver rings on their horns and hoofs. When the ploughing was finished, the oxen and the plough were presented to him as his prequisites, the people reverencing him as their guru. Then all kinds of seeds (generally sesasum seeds, pulse and kidney beans, i.e., sacrificial grains) mixed with cow dung are sown

with incantations pronounced over them. When the crops have matured and flowers are in bloom, the cows, generally the cattle of the community, together with oxen and calves, are put to graze on them and they are allowed to remain there for one or two nights; for the ground is purified by the grazing of the cattle, consecrated by their exhalations, purged of impurity by the hilarious bellowing of the oxen, cleansed and sanctified by froth flowing from the mouths of the calves, laved by bovine urine, besmeared with their ordure and chequered with slipped cud and their foot-marks. The foregoing procedures of selecting and sanctifying the ground were followed in all cases of a village, a ward, a fortress, and the like".

As regards other ritualistic details, they are reserved for the part V—Temple-architecture.

N.B. (i)—Among the other notable architectural preliminaries like, Site-planning or Vāstupada-vinyāsa including the orientation, the ascertaining of the cardinal points by means of a gnoman, etc., etc., and marking out the area, etc., i.e., marking off the perepheries of the town, with especial reference to the dimensions etc., the former has already been dwelt at length in the previous part and the latter is reserved for the chapter ahead—vide Folk-planning.

N.B. (ii)—This chapter is principally based on the S.S. and details of other texts—vide V. L., have not been delineated upon as these may be purviewed there.

CHAPTER IV

ROAD PLANNING

Streets and their planning form one of the most important canons of town-planning and our ancient sthapatis were wide awake to this vital principle. Roads have a threefold function : they are high ways for traffic ; secondly they demarcate the plots for buildings and constitute a vital limb in the site-planning and thirdly they have sanitary value, providing arteries of free ventilation. Though as per the details of some of the Śilpa-texts it seems that the roads were not so spacious as we have today but some of the ancient works have compensated in regard to adjusting the width of streets to the volume of traffic. Thus we read in the Devī Purāṇa—ch. 72.78-9—"The royal street or high way should be made as wide as ten dhanuṣ i.e. forty cubits, so that men, horses, elephants, and vehicles can have free movement without interference and congestion." Śukrācārya, prohibits construction of small lanes such as 'vīthīs' (small lanes) and 'padyās' (foot-ways) in the metropolis or large cities. In Kauṭilya's Artha-śāstra (Book II ch. IV) we find mention of roads for chariots, roads for cattle, roads for elephants and roads for minor quadrupeds as well as for men, which tradition is also fully followed in the Harivaṁśa, Viṣṇuparva ch. 38—"Vehicular streets (rathyā), avenues (vīthī) and men's roads (nṛṇām mārgāḥ) were constructed separately in the city." Further in the Devī and Brahmāṇḍa Purāṇas, the deśa-mārgāḥ or diśām-mārgāh i.e. country roads are stated to be as wide as 30 dhanuṣ, Grāma-mārgas 20 dhanuṣ and Sīmā-mārgas only 10 dhanus which clearly shows the grasp of the several roads of towns conforming to the different traffic circulations.

With this general introduction, let us concentrate on the evidence as furnished by the Samarāṅgaṇa-sūtradhāra, the principal text of our pursuit—vide my thesis on the subject.

Now before proceeding with the planning of the roads a relevant point for consideration crops up; namely, whether road-planning should come first or the Pada Vinyāsa is to be given priority. Street planning, as a matter of fact, is generally based upon the lines of the divisions of the plots under Pada Vinyāsa scheme. The wards so marked off by principal streets are exactly identical with the blocks lined off in the Pada Vinyāsa. According to all Śilpa-Śāstras including the Samarāṅgaṇa, distribution of professions and castes as well as

allotment of sites are made entirely with reference to Pada Vinyāsa, a pada or a block being set apart for a particular caste or profession. I have already referred to the thirtytwo such schemes of Pada Vinyāsa (vide Mānasāra). Thus the mode of division into Padas is drawing as many a rectilinear parallel lines as the scheme in question warrants, together with the similar number of the transverse parallel lines, viz. the sketch of the Caṇḍita, noted above and illustrated in the Appendix where there are equal number of rectilinear as well as transverse parallel lines.

Another notice, before the canons of the street-planning are taken into account, is that the preliminary procedure of the division of the whole area into the rough partitioning of the plot in order that the principal component parts of the town-plan namely, the fortification consisting of the surrounding walls and ditches, Aṭṭālakas, gates and Gopuras and the requirements of the principal currents of traffic circulation, may become of easy handling. This scheme as pointed out consists firstly of the measurements of towns, respective standards of measurements of length and breadth in the three varieties of the towns, namely superior, medium and the inferior are already noticed; secondly, the whole area is to be partitioned out in sixteen blocks, six highways and nine Catvaras; thirdly, the whole plot should have six artery lines (Vaṁśas) in two groups of three belonging to the fourfold pada and these should run from East to West. This rough partitioning is a common procedure in all the categories of towns—superior, middle and inferior, according to S. S. (10. 1-5).

This, it seems to me, was the initial stage in the planning of a town. This is what we understand to be the layout of the whole area under planning. We can infer that the town-site was demarcated, to begin with, by three moats, rampart wall, towers and gateways. This marked the initial step in the planning of a city (*Nagara-Māpana*). The Pārikheyī-bhūmi determined the configuration of the site.

Samarāṅgaṇa prescribes as many as thirtyfour roads in a model town running both from East to West as well from South to North. These roads are so planned as to cover both the interior and exterior planning in the most healthy orientation giving not only the benefit of the sun-shine and ventilation but also comfortable residences.

The first priority is given to the central path called Rāja-mārga to be located on the central or the middle vaṁśa. Its dimension of breadth varies with the three varieties of the towns — Jyeṣṭha, Madhya and Kaniṣṭha as 24, 20 & 16 hastas (i.e. 36, 30, 24 ft.) respectively. It should be wide enough for free traffic circulation more

especially for the four-fold army (Caturaṅga-Bala), the king i.e. princely procession, and also the townsmen (the mass of humanity). It should be made firm with gravel (Kāśmaśarkara). This is the principal path.

Again two highways technically called Mahārathyā, the large chariot or vehicular roads should be placed on the Upāntastha Vaṃśa, the dimensions being 12, 10 and 8 (18, 15, 12 ft.) in the three varieties.

In addition to these paths, a set of four ways called *Yāna-mārga*—vehicle-streets are to be laid and their dimension of four hastas (i.e. 6 feet) is fixed in all the sizes of the towns. Their location however, is enjoined in the middle of the Pada. Again it is directed that all these four Yāna-mārgas should each have two *Jaṅghā-pathas*—the foot-paths and these are to be located on both sides of the Yānamārga, and their respective dimensions being 3, 2½ and 2 hastas (i.e, 4½, 3¾ and 3 ft.).

Besides these fifteen roads, so far enumerated to be laid out in a town, there still remain two more roads called *Ghaṇṭā-mārgas*. They should run along the boundary wall and have all the qualities and specifications of the Rāja-mārga. The laying out of all these seventeen roads, as already hinted at, is concerned only with two directions, namely from the East to West. Similarly, the same number of these different categories of roads and streets and foot-paths having the indentical dimensions, etc. are to be so laid out as running from the South to the North. This reaches the number thirtyfour. It does not end here. The text further enjoins that in order to provide space, ventilation and passage circulation, a number of lanes and byelanes should also be provided in any scheme of road-planning. This is more necessitated as per the site-planning, the folk-planning, the demarcation of the respective blocks done with the help of these lanes and byelanes. It is the fundamental constituent of an Indian town plan.

This is only a rough statement of the road plans. There are certain statements which need elaboration and critical examination. Firstly the main streets, namely the Rāja-mārga, Mahārathyā and Yāna-mārgas (chariot roads)—all run from East to West or from the North to South in a rectangular chess-board system. That is, they are laid out in parallel rows cutting one another at right angles. This is the recognised method even in the present times. A remarkable extant illustration of the ancient system is Jayapore, the city founded by Mahārāja Jai Singh, the great astronomer. We know that principle of orientation was meticulously adhered to by the Indian

Town Planners. All the manuals of Vāstu-Śāstras are emphatic against any structure or Vāstu pointing towards the diagonal corners of the heavens. It is in keeping with this that the city was laid out axially to the cardinal directions, and all its streets ran straight from East to West and North to South. In ancient Vāstu terminology (cf. Mānasāra Ch. IX), this plan is known technically as *Prastara*. It is similar to what we understand by the chess-board plan these days.

Secondly, what are the Vaṁśas on which all these roads are said to be laid out ? We are all familiar with the settling down and forming thereof (though only diagramatically and mystically) the body of the Vāstu-Puruṣa, the Presiding Lord of the whole plot of land in such a manner that the whole piece of the plot is covered by the different limbs of his body. He is described as hump-backed and of crooked shape. Therefore, it is made possible for Him to cover the entire land. The S. S. in its 12th Chapter describes the Mahāvāṁśas together with Śiras, Vaṁśas, Sandhis, Anusandhis and Marmas in relation to the formation of the mystic body of the Vāstu-Puruṣa. Their architectural concommittants in the site-plans would be the Śiras or Nāḍis taking for their convergence the sixteenth part of the Pada, the Mahāvaṁśas are two in number, located in the centre running both from East to West as well as from South to North and take for their convergence the fifth part of the Pada ; similarly, Vaṁśas, Anuvaṁśas, Sampātas, Marmas all running in the middle take the eighth, the tenth, the twelfth and the sixteenth part of the Pada respectively for their respective convergences. Thus, leaving aside all other technicalities the Mahāvaṁśas are the central arteries in the body of the town commonly so drawn as to serve as the prototype of the rectangular roads converging in all the directions in a town.

Thus this is the picture of street planning as described in the S.S. For its fuller presentation, the appended sketch of the road-plan, would be more helpful. Here, in this sketch, are drawn not only the principal thirty four streets, but also a number of lanes, byelanes and and side streets connecting the central road and going through the different localities to give full space to the different localities and providing them with necessary light, air and good and healthy orientation as well as allocating places to the necessary articles of daily use. It may be pointed out here that the subject of street planning in works like Mānasāra, Mayamata, Artha-Śāstra of Kauṭilya, Nītisāra of Śukra, Purāṇas like Devī and Brahmāṇḍa is exhaustively treated and their elaborate notice is taken by Sri B. B. Dutta in his 'Town Planning in Ancient India.' But for the sake of completeness, the broad principles

of the street planning which are found in them may be noticed. Firstly, it was according to the number and directions of the streets and the arrangement of houses along them that most of the classifications of towns like Daṇḍaka and its further categories were denominated (Mayamata, the 9th Chapter). Similarly, Mānasāra classified the towns, according to street planning and site-planning under eight heads, like Daṇḍaka and Nandyāvarta etc. (Chapters IX & X). Secondly, diagonal streets (very common these days) were not advocated by these Śilpa-śāstras of old. The two princpal roads of every town continued upto the main National Highways and thus serving the main purpose. There was however, an exception. The diagonal streets were inevitable when exigencies of the situation such as hilly tracts, were the natural factors for laying out such streets. Thirdly, it can not be said that in ancient India or in the early Medieval India the roads of the towns did not have the foot-paths lined parallel to them, (Sri Datta is doubtful in this respect, ibid. 133 page). The S. S., as we have already noticed, does provide for Jaṅghāpathas (space for pedestrians) on both sides of the vehicular streets—the Yāna-Mārgas (S. S. X. 12). Fourthly, special attention in the ancient system of the street planning was devoted to the trimming of the outer-sections of roads. It served manifold purposes such as beautifying the intervals of the long roads with some architectural objects, like temples, towers or tall trees and also serving the cultural life, the socio-political not excluded, by allotting these central projections on the cross roads to some public building like the Sabhā, the Assembly hall (cf. the modern town hall) or a shrine or monastry. Thus these junctions of the roads were so planned and finished as also to satisfy a psychological need—the monotony of the hazy vacuity of long straight streets wearing the eye sight if there is nothing in front to fix the eyes upon. Again we have noticed that the centres of the town (the junctions of the roads included) were reserved for imperial palaces with their picturesque plants and the flower gardens presenting a delightful panorama to the pedestrians winding their way along the streets. Again it was with this broad aesthetic principle that buildings constructed on the roads were not done so in an irregular fashion. There was cooperation in alignment and structure (vide description of Ayodhya in Ramayana). Lastly, the streets were elevated in the middle looking like the back of a tortoise and they were made firm with gravels and the like i. e. Kāśma-śarkara (vide S. S. X. 8). There were drains also on both sides of the roads (vide 'Fortification' of this Part).

All this amply justifies that principles of advanced street planning were not unknown to this work.

N.B.—As regards the details of other books like the Mayamata and Mānasāra, I take the liberty to reproduce them as Sri B. B. Dutta has done.

Mayamata : " That town is called Daṇḍaka which has only one easterly street resembling a phalanx or a staff (daṇḍa) with houses arranged along it. If the town possesses, also, only one northerly street intersecting the other at the centre it is called Kartarī-daṇḍakam. If it further contains two building alleys running east to west (prācīnau kuṭṭimau) at the extremities of the northerly street, then the town is known Vāhudāṇḍakam having four gates in the four cardinal directions. If there are several sets of houses along the two sides of northerly street with many houselanes intervening between, it is called kuṭikā-mukhadaṇḍakam. If the town is planned with three east-to-west streets and three other north-to-south streets, it is termed Kalakābandha-daṇḍakam." The last four rural towns—these rather resemble the subdivisional town in modern India—are clearly the four varieties of the daṇḍaka towns. "Noted among other towns is Vedībhadrakam. It has three streets directed north and south and three vīthīs or streets running to the east. These streets are separated by many residential lanes (kuṭṭimamārga), one lane intervening between every two streets. The Svastika town does not differ in plan from a Svastika village. The Svastika is also a town which has six streets facing north and six others facing east, all encircled by another road and these dividing the city into residential plots (vīthīpadam). The town-plan is known as Bhadrakam, if it consists of four streets running east-wise. In it there are one street going round the quarters of Brahmā and three lanes to the east intervening between the rows of houses If the number of similarly directed streets be five and five and there be many building plots, the name of the town is Bhadramukham. Another type is Bhadrakalyāṇam ; the number of streets in it facing north is six, dividing it into many building plots. The plan is known as Mahābhadram, if the number of such streets be seven and the rest as before. The town plan of Subhadra has eight streets facing the east and eight more transverse to them. The lanes which divide the building plots of this town-plan are furnished with gates and cross-bars. The Jayāṅga is the name of the town containing the imperial head-quarters. This town has a net-work of nine streets lying east to west with nine others transverse to them. It has four main gates in the four cardinal directions and four other subsidiary gates in the four corners. The lanes between the building plots are provided with

portals which open out on the main streets. The experts designate the town as Vijaya in case it is divided into many building-plots by lanes fitted up with gates and cross-bars to bolt them with. The number of main streets in it is ten versus ten. The imperial castle is installed in the town. Another town called Sarvatobhadra has eleven streets crossed by another set of eleven. The royal mansions are situated on any site barring the central quarters dedicated to Brahmā. In the front of the royal castle is a vast courtyard where is situated the harem. The rest should be planted according to necessity and exigencies of the situation. Its street running towards the east (tatprāg-diggata-mārga) is called Rājavīthī. The buildings of the rich range on both sides of it. Adjoining them are the quarters of the merchants. To their south are settled the weavers and to their north are established the wheel-wrights (cakriṇah, carriage-drivers ?). In their neighbourhood are quartered kindred professions." The prescriptions of the Mānasāra are almost identical.

On the evidence as deduced by Ramraz's 'Essay on Hindu Architecture' and that furnished by the celebrated Mayamatam, denominations of the various kinds of streets in a town have been elaborated by Datta as follows :

"A street that goes round the village or town is called Maṅgalavīthī which should be one to five daṇḍas wide. That which runs from east to west is called Rājapatha; that which had gates at both extremities is termed Rājavīthī; that which has 'sandhis' (literally junction) is Sandhivīthī; and that which lies in a southerly direction, is named Mahākāla or Vāmana". According to Mayamuni, the streets that run straight like a staff from east to west are called Mahāpathas (broad highways). Of them the street passing through the centre (that is, the plot presided over by Brahmā) is called Brahmavīthī and this forms the navel of the network of streets. On both sides of this street and comparatively smaller than it are those streets (rest of the Mahāpathas?) called Rājavīthīs and these are fitted with gates (at the extremites). The Maṅgalavīthī and the Rathamārgas (car-streets) all are kuṭṭimakas (because they seem to have been paved with slabs of stone). These roads if furnished with transverse doors go by the name of Nārāca-pathas. The comparatively narrower streets facing towards the north and equipped with gates and bolts are called Vāmanapathas. The street that goes round the village is called Maṅgalavīthikā and the corresponding street in a capital is called Janavīthikā. But in ancient authorities and in other towns, this street is technically termed as rathyā or the road along which the processional chariot (ratha) is dragged. The streets are one to five dhanuṣ wide".

CHAPTER V

JĀTI-VARṆĀDHIVĀSA

(Folk-planning)

N. B. Folk-planning here means not only the planning of the residential houses but also the market-places, the shops etc. along with other essentials which constitute the residences and establishments of the '*Jātis*' and *Varṇas*'. Again it may be remarked that Road-planning and Folk-planning, being essentially based on the site-planning (what has been termed as Vāstū-pada-vinyāsa—vide 'Fundamental Canons' Pt. I), both these canons may be deemed as simply the gradual development of the site-planning according to Hindu Texts of Architecture.

After the planning of the roads, the next important topic is the planning of the boundary wall, ditches, ramparts, etc. of the town. To put it in one word—the subject of fortification is taken in hand after the roads are prescribed or laid out. But as per the discussion already made in previous pages, I have in my own way suggested that the question of residential houses be taken up first and then that of the fortification. This goes well with the arrangement of the Town-Planning. After all, a town is not an individual business. It is a business of society. It is a corporate business in which the individuals, the society and the government all take part in evolving a model town. Once the roads are planned out, the plots carved out, the individuals and the societies start their work of building residential houses and Public Works Department take up the neccessary planning of fortification, water reservoirs, gates, Gopuras, parks, gardens, tanks and so on so forth. Thus the civil planning and the individual planning go simultaneously in order to speed up the work. Moreover, if the fortification is laid out first, the building operations necessitating the delivery of the materials would be obstructed to a great extent. Hence in order to avoid congestion and inconvenience, in the passage of the transport and traffic as well as providing the fullest freedom in the circulation, the priority should go to the folk-planning first and the fortification should come afterwards. The S. S. does support this procedure (Ch. X).

It may be pointed out at the very outset before taking up the site-planning or folk-planning as prescribed by the S. S. that folk-

planning and site-planning though materially indentical, have their respective importance in the respective angles from whith the planning starts. There were principally five kinds of towns in ancient and the early medieval period—temple-cities, capital-cities and commercial towns, forts, and big villages, like Kheṭa, Nigamas, etc. corresponding to five principal needs of the civilised life, namely worship, state-craft, commerce, defence and agriculture. They had their especial characteristics each as per the special requirements in each case. It may however, be noted that in accordance with the previous thesis that the S. S. prescribes only three principal categories of towns—Pura, Kheṭa and Grāma; the Pattana (the secondry capital) and Puṭabhedana, the commercial town are really the especial categories of Pura. It may, however, be permitted to remark that this might be the evolutionary period of the growth of towns. But, as time passed, all these specialities like temples, fortification, market places, council halls, and seats of government, were amalgamated into one uuit, if not wholly atleast partially. According to the S. S., a town of superior variety used to serve all these necessities. Accordingly, the norms of the town-planning especially the folk-planning of the S. S. substantially differ from both the groups of this class of earlier literature, namely the Śilpa-Śāstras like Mayamata, Mānasāra, etc. and works like Arthaśāstra and Śukranītisāra. In the former, the folk planning hinges upon Pada-Vinyāsa, whereas in the latter, there is no importance to it. Samarāṅgaṇa combines both these and has evolved a composite planning in which on the one hand, the purpose of the padas presided over by the different divinities was served by the construction of the temples and shrines in the interior, as well as the exterior part of the town, on the other, the arrangement of the corporate and the co-operative, the public and the State buildings together with segragation of the residential houses castewise and profession-wise also was made.

Now in relation to the directions the following eight-fold division of the residential quarters representing eight-fold circle of the directions presided over by the respective deities may be very briefly tabulated as under—

N. B. The folk-planning begins from the South-East and the East is fully reserved for imperial quarters, a special consideration for the aristrocacy of those days and it was natural also in the political structure of those days:—

South-East. Goldsmiths and those earning their livelihood by fire and other such artisans together with the fourfold army.

South. Vaiśyas, potters, or cart-wheelers (Cākrikas), dice-players, and the professionals in the dance and drama together with the Śreṣṭhīs and Deśa-Mahattaras.

South-West. The hoggers, the shepherds, the hunters, the fishermen and those belonging to the department of punishment (Damanādhikṛts).

West. Charioteers, soldiers, all those skilled at weapons together with the head of the treasury, the Mahāmātya, the Ādeśika and the artists and Niyāmakas.

North-West. People belonging to the Public Works Department and the labourers, distillers and sellers of wine together with the chief of the Police (Daṇḍanātha) along with other officers.

North. The hermitages of ascetics, the Brāhmaṇas the Assembly hall, water-shed, the dwellings of the Priest, the Astronomer, and Brahmavādins.

North-East. Sellers in commodities like clarified butter and fruits.

N. B. It means their number was very large, as a separate quarter is reserved for only these two classes of professionals.

East. The Royal dignitories like the Priest, the Prime minister, Commander-in-Chief.

N. B. The king himself; with all his establishments (vide S. S. ch. 15th.)

So far this is only the profession-wise allotment of the residences. As regards the castewise allocation in a town, the text recommends the following procedure:—

1. The Brāhmaṇas.	The North.
2. The Kṣatriyas.	The South-East.
3. The Vaiśyas.	The South.
4. The Śūdras.	The West.

N. B. The Vaiśyas (the merchant class, sellers in articles of daily use) and the physicians should be distributed in all the quarters along with the Police and the Army.

This is the scheme of the settlement of various castes and professionals in a city, i. e. planned habitation of the city population

according to the S. S. A special notice in this connection are the royal dignitories or State-functionaries like Niyāmakas and Ādeśikas which throws a light on the composition of the government of those days and persons like Deśa-mahattaras etc. composing the then society.

One point needs a bit of clarification here. It is strictly speaking literally the folk-planning, the Jātivarṇādhivāsa—the planning of the residential houses castewise and profession-wise on the eight blocks, on the eight quarters. Here in this scheme, we do not find any mention of the residence of the king (also cf. Agnipurāṇa where too the Rāja-Veśma is conspicuous by its absence). The planning of the palace, the S. S. does not include in folk-planning or site-planning It is a separate unit of planning altogether. Therefore, in this scheme of town-planning the central parts of the town are reserved for the roads and the palace in all its establishments, domestic, like the chambers for the queens, the palaces of the princes and the princesses as well as those for the queen-mother, ministers, commander-in chief and other dignitories of the kingdom, and the pleasure gardens, ponds, lakes, flower-beds, and all contributory to a vast paraphernalia of an Indian king. The S. S. as a standard manual on palace-architecture, has devoted a separate chapter to the planning of a palace as a component part of town-planning which reads like another plan altogother with all the characteristics of a big town. As temples of old grew into cities, similarly the palaces of old also grew into great towns. To put it more succinctly, let us draw a graph to show the place of a palace in a capital town:—

NE	N	NE
W	Rāja-Veśma	E
SW	S	SE

It is this nine square scheme of habitation with the king in the centre.

It may be remarked here that this scheme of thé town plán of the S. S. in connection with the Jāti-varṇādhivāsa and the royal palace is strikingly similar to one given in the Agnipurāṇa, (the detailed accounts of the Agnipurāṇa's scheme and those of other texts may be seen in Datta's book T. P. in Ancient India).

Bhoja has dealt with this subject also in his Yukti-Kalpataru. The accounts however, are fundamentally similar. It may be noted

as sri Datta has also concluded that the general feature that is conspicuous in all the prescribed plans, as advocated by the different authorities on the subject, is, that generally in the central part of the town all the public buildings of importance, such as the royal palace, the court, the town-hall, the temple, the council house and the like are to be located. This was an ideal arrangement both for the healthy and efficient functioning of the corporate life of the citizens as well as from the point of view of the architectural appearance and grandeur of the metropolis.

Thus this is the evidence of the S. S. A brief notice of the folk-planning as prescribed by other notable texts like the Mayamata etc., may also be taken—vide also V. Lakṣaṇa. "The Mayamata makes an exhaustive treatment of the proper distribution of the residential quarters interspersed with market stalls (antarāpaṇakam). It particularly deals with these inter-residential stalls and the articles sold in them It lays down : " Whether in small towns or large cities, I shall now deal with residential sites and the shops situated in their midst. Within the processional boulevard, circumscribing the city are situated in rows the houses of the merchants. To the south but a little removed to the sides are given sites to the weavers ; to the north are the residential plots of the wheel-wrights (carters? cakriṇām). Along the processional street are settled the various artisans and mechanics, e.g , blacksmiths, or even day-labourers. Inter residential market-stalls may be set up along the roads encircling the chambers of Brahmā and those stalls should be reserved for fruits and betel-leaves. In the quarters held sacred for the deities from Īśa to Mahendra should be erected the stall for fish and meat, dry articles, and vegetables. The stalls for staple foods and edibles are fixed in sites from Mahendra to Agni ; and from Agni to Gṛhakṣata are raised sheds for basins and pottery. From Gṛhakṣata to Nirṛti should be allocated the shops for brass and bronze. The cloth shops are set up in the quarters from Pitṛs to Puṣpadanta ; and from the latter to Vāyu should be laid out the mart for rice and paddy. From Vāyu to Bhallāṭa quarters are meant for the drapers (tailors and cutters) and those who deal in salt and oils. From that to Īśa are situated the shops for perfumeries and flowers. The above are the nine intervening shopping sheds in the outer-most sites. But along the roads that are laid out within the boulevard are stationed the stalls and shops of jewels and precious stones, gold, clothes, drugs and candiments such as mañjiṣṭhā, pepper, pipal, ginger, honey, ghee, oil and the like, medicines and these in all directions. Then he makes allocation of the sites for divine edifices consecrated to

various deities. In all directions are allowed all sorts of habitants. About two hundred daṇḍas to the east or to the north-east of the town the cottages for the chāṇḍālas and the washermen should be raised as in the settlement of a village. The above is the scheme of site-planning of an ordinary town. But in a port or commercial emporium such inter-residential shopping stalls are not desirable; but on the other hand to secure economic efficiency, they should be concentrated, being set up in continuous rows on either sides of the highways. In the other types of cities, every thing should be arranged with regard to the peculiar needs and interest of them".

This is the typical folk-planning in relation more to the professions than to the castes, which in that hoary age may be taken as a very advanced folk-planning akin to one in modern-times. As regards the other authorities, the relative tabulations will do but some words on Kauṭilya's and Śūkra's folk-planning may also be said. Without going into details it may be said that in Kauṭilya's scheme, it is the streets and not the Pada-vinyāsa that divide out the city, unlike the plans of Śilpa-śāstra, hence our thesis that in ancient India there was no dearth of civil planning or civil architecture gets supported.

Similarly according to the dictates of Śukra and the advice of the Agnipurāṇa, the folk-planning does not hinge upon Pada-vinyāsa, though the site-planning of the former is a bit different from that of Kauṭilya's. Unlike Kauṭilya, Śukra provides for the Sabhā or the Council house in the centre of the capital (sabhāmadhyām rājadhānīm) and the royal palace in the midst of the council buildings (rājagṛham sabhāmadhyam). The court and the Śilpa-śālā or the museum (literally, hall of arts), both are to be stationed to the north of the palace. Leaving a space of hundred cubits from the palace (probably towards its north) the ministers, the clerks, the councillors, and officers should be located in detached lodges. Two hundred cubits away from the palace, either to the north or to the east, are allowed sites for the military cantonments. Śukra observes a certain order in the allocation of different classes of military barracks. First, the important personages (prakṛtayah), then the ordinary people, next the officers, then the commanders of the army, then the infantry, then the cavalry, the attendants of horses or elephants, next the guns and ordnances, the mares, the constabulary and sentry thereafter, lastly foresters; this is the order to be followed in the location of these sites or quarters. Wealth and birth were the determining factors in the distribution of sites for dwellings of the citizens round about the royal palace. The inns and restaurants should be well protected and provided with ample supply of water. The cognate houses, their

relation being determined by similarity of business or identity of castes, shall be congregated together in a row. In the towns or villages the buildings should face either the north or the east. In the market place, the stalls or shops are to be placed according to the classes of commodities. The best plots along the side of the high ways should be distributed with regard to the wealth and power of the residents. In this way the king should plan both the town and the grāma." To sum up the basic canons of town-planning in ancient India, we may conclude in the words of B. B. Datta—T.P.A.I. pp. 147-8 :

" In India, considerations of efficiency in corporate life, and the principle of the Varṇāśrama Dharma developing a social stratification of the people in general and of the functionaries of the state, led to a segregation of the classes following different pursuits ; and the same caste or people of the same profession were congregated in the same ward so that a uniformity of life and consequent economic efficiency and progress were secured. Every ward was set apart for a caste or trade guilt of note which enjoyed an autonomy of its own. Thus if the Śūdra class was numerically very large, a separate block or even a separate site was alloted to it. The goldsmiths, the artisans, the perfume-dealers, the Brāhmaṇas, or the soldiers would have distinct muhalla or a detached group or block of their own. Even today in the town or village of Southern India the Brāhmaṇa quarter is separate and goes by the name of Agrahāram. In large cities any of the sites into which the whole city was divided by the main highways, was so large that no particular class was important and big enough to inhabit it to the full. Again in large cities such detachment of classes or castes is neither conducive to the integrity of civic life nor good for the class itself, because corporate life connotes manifold needs and responsibilities and consequently necessitates inter-dependence and inter-communication. Hence every site was divided into different blocks or plots, one being meant for each class. In a word, a site was the prototype of the whole city on a smaller scale. This admixture and congregation of classes came as a remedial measure against possible accentuation of class differences ".

CHAPTER VI

DEIFICATION AND BEAUTIFICATION OF TOWNS

(Public Places—Temples & Gardens etc.)

(A) Temples

The gods played a very important role in the life of the citizens of those days and naturally, therefore, there was a good number of temples and shrines even in a single city or town. The background on which the institution of the temple dedication in the town has been kept going is not difficult to understand. Every inch of the town-ground is to be sanctified, hence so many temples both in the interior as well as in the exterior part of the town, are prescribed. A general recommendation, however, in this connection, is that every house should have the images of goddess Lakṣmī and the god of wealth, the Kubera, on its main door and they should both face the East (S. S. Chap. X. 104; also Agni Purāṇa, Ch. 108). The S. S. says (ibid 105-6): Thus set up they bring prosperity, peace and happiness to the town, otherwise misery would be the result. Again a general direction for the exterior and outskirts of the town is, that the phallic-emblems should be dedicated in the west of the exterior of the town. As regards the cemetries and the Śiva-liṅgas thereon, they are to be placed in the southern quarter of the town (X. 102).

I—External location of the Deities.

1. Temples of Viṣṇu, Sūrya, Indra and Dharma to be located in the Eastern direction of the town.

2. Temples and shrines of Sanat-Kumāra, the physician-god, Sāvitrī, Maruts, Māruta (the modern Hanūmān) to be located in the South-East.

3. Temples of Gaṇeśa, the Mātṛs, the Bhūtas, and the lord of Pretas—Yama in the South.

4. Shrines of Bhadrakālī and the mounds of Pitṛs in the South-West.

5. Shrines of oceans and their lord Varuṇa, rivers (such as Gaṅgā), Prajāpati-Viśvakarmā to be located in the West.

6. The shrines of serpents, Saturn and Kātyāyanī to be located in the North-West.

7. The temple of Viśākha, Skanda, the Moon and the lord of the Yakṣas, Kuber, to be located separately in the northern quarter presided over by Mercury.

8. The temples of the Lord of the world, Maheśa, goddess Lakṣmī and of Fire to be located in the East.

II—Internal location.

(i) In the middle of the town, the temple of Brahmā, should be located. Shrines of Kṛṣṇa and Balarāma are also to be located here.

(ii) This is the only special specification for the location of the temples in the interior of the town; otherwise the general rules laid down in the external location of the different deities in their particular quarters hold good in the internal location also (Chapter 10.129).

Another special location, talked of in the text, is that of the Mātṛs, Yakṣagaṇa, Śivakas, and Bhūta-Saṅghas. They may be located without a temple, or a shrine specially built for them, i.e. statues on the raised platforms called catvaras specially built on the cross roads suffice (ibid. 131).

A very special recommendation—rather prohibitory order, enunciated by the S.S. is that it is against erecting too many temples dedicated to a particular deity. Violation of this brings curse to the builder—the patron and the society at large (Chapter X. 133 and onwards).

Another point in connection with the dedication of the temples of the gods and goddesses is that they should be so established as always facing towards the town—those placed in the East should face the West and vice-versa. If perchance this rule is violated, a propitiatory rite is enjoined consisting also of carving out the image of the god in question on the temple wall facing towards the town. All this indicates that no departure from tradition is sanctioned and the rule of dimensions together with the layouts are to be strictly followed in order to have the desired effect. The S. S in another place (chapter 40.13½) says, "The gods when set up with correct proportions (then only) become fit to be worshiped".

Similar details are dictated by Purāṇas like Agni and the Śilpa texts like the Mayamatam and Śilparatnam. This is the evidence as furnished by the principal text of our study. As regards the other texts—the Aparājita-pṛcchā and Śilparatn—vide Vāstulakṣaṇa, the details may be left out here to be purviewed there for want of space. The details of the A. P. are peculiar in as much as they are limited to the temple of the town rather than to its temples.—Śilparatna's dedication of the town deities is similar to what we have studied—vide the S.S.

The dedication of too many temples on the town plan, to put it in a nut-shell, is indicative of idealisation or deification of the abode where a constant communion with the spirit may be secured. Spirituality, the fountain-head of the life currents and the temples, its embodiment, takes a tangible shape at these religious centres and the culture and education fostered, promulgated and propounded here are dessiminated alround.

The question is why our Śilpaśāstras bestowed so much attention on the deification of the town ? It was perhaps a secret of Hindu character to subordinate materialism to spiritualism. The spirituality and the purity of the race were of paramount importance to them. Sister Nivedita's (cf. Civic and National Ideals) observation that 'the ground on which a city stands is in truth, a great hearth—place of human love, a veritable altar of spiritual fire,' is very apt, indeed. In words of Datta "spirituality is the fountain head from which flowed the national currents. Hence the temple—embodiments of spirituality, were the centres where culture and education were fostered and promulgated. Again he same sages who were the custodians of sacred lore and expounders of Hindu theology holding holy communion in meditation with God, were also the professors and propounders of Hindu sociology. Generally the wise and sagacious hermits, belonging to the sacredotal class were also the persons who directed the legislation of society. A sequestered cloister away from the hustle and bustle of the city was the one most suited to their contemplative life and to the training of the young hopefuls of the race. And their hermitages took the place of modern colleges where students congregated from all parts of the country. The temple hermitages or monasteries of ancient India formed the nucleuses of the university towns of later ages, such as Taxila or Nālandā, Naimiṣāraṇya or Benares."

After the location of the temples and dedication of them to the different deities together with the emergence of a full grown town in different localities inhabited by the different classes of society—some consideration must be given to adding beauty and comforts by planning the beutiful gardens full of flowers and plants, orchards, lotus-ponds and pools and tanks together with childrens' parks and public places like Prapā, Puṇyaṣālā, Purajana-vihāra and also jala-bhramas (vide S. S. X. 52).

(B) Gardens etc.

There are only two or three stray references regarding this topic in the text which fully give hint that the towns of old, and more especially those belonging to the medieval period when Mālava King, Raja Bhoja, was ruling, were full of gardens, parks, pools, tanks

and public places. The directions as given in the text for the planning of Temples expressedly mention the laying out of the gardens (Chapter X. 110). These towns were so planned out as to allot suitable places, more especially in the intervals of the different localities, to open places for fresh air and plenty of sun-shine. The modern gardens, parks, open fields and plantations, characteristic of garden-cities used to revolve round the temple, the centre of the communal life in those days, with magnificent maṇḍapas, serving as common halls for debates, discourses, religious sermons and the like and there were rest-houses within the temple compound where all sorts of people could freely congregate together. The temple platforms adjoinining some tank or pond and flower orchards were the common public places where the towns-men of old used to sit and discuss the things and evolve state-craft.

Again the S.S., in its delineation puon the fortification of the town and the planning out of the gates and gopuras, has specifically mentioned a beautiful belt of gardens surrounding the entire town. This points to the ideal of a garden-city for those days. We have seen that gardens were an essential constituent of a temple establishment in ancient India, but the large parks and gardens were also laid out, in the centre of the town. The green belt of beautiful shrubs along with the moats full of water served the rows of plantation, (S. S. 10. 22-24) so highly extolled these days.

But apart from these common establishments, the fundamental philosophy in the minds of the Indians which guided them to plant trees was their conception of sanctity and sacredness attached to a number of trees apart from their aesthetic property and sanitary potentialities. The holy Bilva, the shady Baṭa (Banyan), the sublime Kadamba, the Neem, the sacred Aśvattha, the flowering Campaka or Bakula and a host of others, satisfied not only the aesthetic sense of the people but their religious sense also as some of them were regarded as sacred as to be offered worship. The trees were indispensible. They had their sway in every walk of life. The shady Baṭa situated in the centre of a village or a town served asthe Council hall Bhoja in his Yukti-Kalpataru directs that a town should be adorned not only with sheds for drinking water (Prapā) tanks (Kāsāra—artificial lotus lakes), shrines and halls but also with gardens and the alike (ibid). It appears that cities in ancient India somewhat partook of the character of our modern garden-cities. The hill surroundings, the rivers, tanks and lakes together with profusion of trees (the gardens) were considered to be an ideal situation for the establishment of a city (S. S. X. 51).

CHAPTER VII

FORTIFICATION

The most distinguishing features of the canons of Town-Planning in ancient and medieval India were elaborate rules on the fortification of the towns. The scheme of a fortified town according to the S. S. (Chapter X. 1-2) comprised the following five principal elements of of defence:—

1. *Prākāra*—the surmounting parapets, i.e. the surrounding walls.
2. *Parikhā*—moats, ramparts girt by large, wide and deep ditches.
3. *Dvāra*—the gates and gopurams.
4. *Aṭṭālakas*—towers and the turrets.
5 *Rathyā*—chariot-roads connecting the town with the country.

It may be noted that there were so many other architectural components like *Kapiśīrṣakas*, *Kāṇḍa-vāriṇīs*, *Carikā* with *Vedīs*, *Sopānas*, and *Niryūhas*, etc. (10. 30-34) together with the beautiful belts of plantations all round the moat, full of lotuses and laid with a host of flowers bearing trees towards the interior of the town; while the exteriors were laid with thorny bushes to protect them from the easy spoils (ch. 10. 22-24), to add to the beauty of the town and make it at the same time comfortable and health giving with the provision of free air and profusion of sun-shine, plantation, and the like.

This topic of fortification is common, both to the towns and the forts. Ancient cities were fortified towns. There was not much difference between the laying out of a town and a fort. There are two broad classifications of forts—the natural and artificial. The S.S. in its 45th Chapter entitled 'The eigtfold Architecture'—Aṣṭāṅga-lakṣaṇa, (also vide the Yuktikalpataru) divides the first category of the forts, i. e. natural ones as sixfold, water fort, mud fort, forest fort, desert fort, mountain fort (on the top) and cave fort (Guhādurga—cf. F. N. verse 39). That is, a natural fort is one which is rendered inaccessible to hostile encroachments by its advantageous situation secured by natural defences, like mountains, rivers, marshy lands, deserts and forests. The use of Natural forts is evidence of the skill of the ancient town planners in utillising local natural barriers and in turning them into best fortifications by slight manipulations and modifications. As per the second classification, forts like Śibira,

Vāhinīmukha, Sthānīya, Droṇaka, Saṃviddha or Vardhaka, Kolaka, Nigama and Skandhāvāra form the varieties of the artificial forts described by Mānasāra (Ch. X) and also by Mayamata (Ch. X). This Śibira variety of forts, which includes Skandhāvara is, according to the S S., a different architectural object altogether, (vide eight limbs of the body of architecture, Ch. 45.6) where the construction of the forts and the planning of the royal camps (Śibira) are two distinct things.

The S. S. (VIII-36 and onwards) while recommending the four-fold sites for the laying out of forts shows a clear cognizance of this fact with the provision of these natural defences—the mountain (top level), the forest (a belt of dense trees round water reservior), the river-islands, and the artificial make up with the parapets and and ramparts, etc. Here the first three serve as natural forts, the last is the constituent of the artificial one.

The point to which attention is drawn is that, generally speaking these details of fortification in these texts give an impression that the towns of old were militarily planned, and the civic art of those days, in this field of architecture, was subservient to military requirements or the defensive character of the capital cities of those days. The fact, however is, that in the past in India as well as in Europe (cf. Greek or Roman towns, e. g. Florance and Sparta) ramparts and trenches constituted an integral part of town planning. To quote B. B. Dutta, "They formed the *sine qua non* of Aryan habitation"—T. P. in Ancient India, page 70.

When a town is planned, with all its accompaniments such as healthy residences, devotional places, public halls and common pools and wells as reservoirs of water, and public parks, garden belts, scattered orchards and flower lines and lotus beds, it becomes the supreme consideration of the master town-planner to have security considerations.

Let us now proceed with the canons of fortification of a town as laid down in the S.S. These canons centre round the five parts of the fortification as described in the very opening lines of the chapter. The first place in this technique goes to the formation of the mound of the rampart, i. e. the Vapra. "The mound, the proto-type of the skilled Vapra or rampart is the first mile-stone, the indelible landmark towards the various gradations of Aryan progress and civilisation" in the evolution of the ordered living.

The process of the formation of the Vapra is a joint operation with that of the moats—the *Parikhās*. It first consists in the layout of the ground, the *Vapra-bhū* round the town parallel to the *Ghaṇṭā-mārga*, running round the town (S. S. 10. 16) and its dimension too should follow the dimension of the Ghaṇṭā-mārga, i. e. 24, 20, or 16 hastas of width (according to the three categories of the town—large, intermediate and the small (—ibid. 17). This layout being done and the site plan accomplished, three moats in the dimension of the Mahārathyā (12, 10, 8 hastas as the case may be—vide three sizes of the town), should be dug out, round this selected site of the Vapra and then all the earth so dug having been pressed by the trampling of the bulls is to be utilised, three-fourth or half of the whole lot in the raising of the mound in the size of an elephant. Now the remaining earth is to be utilised in levelling up the unlevelled grounds in the town. Thus cleared and cleaned all the three moats ate to be made puccā either with stones or bricks. Again, these then should be filled up with water drawn through the pipe laid, connecting the water reservoirs, like rivers, tanks or deep broad wells and some mechanism also to be laid up for the periodical clearance of the stagnant water. "Here are to be nurtured the lotus and lily plants in the water to add to the beauty and the crocodiles to be let off in them, so that no enemy could swim across them with safety". On their sides towards the town, a good many plantations—orchards, gardens, flower-beds are to be laid. As regards the external sides, they should be planted with thorny plants for strengthening the fortification. The number of moats, their formation and other details as given in the text tally more with Kauṭilya's Arthaśāstra than any other extant work. He too prescribes three moats round the fort "fourteen, twelve and ten daṇḍas respectively in width with depth less by one quarter or by one-half of the width, square at their bottom, one-third as wide as their top" (Book II, Ch. III). The moats of Pataliputra, the Imperial city of the renowned Chandra Gupta Maurya were constructed in confirmity to the rules laid down in the Arthaśāstra. It is corroborated by the accounts of Magasthenese also.

These moats, apart from their utility as fortification of the town, had manifold uses. Firstly, they were an important part of the complex drainage system of the city. Secondly, they supplied the quantity of mud necessary for the erection of the city walls and filling up the low bogs and marshes of the city ground and also make it slant towards one direction so necessary according to the time-honoured tradition of the Vāstu-śāstra. Again, in case of emergency,

as these moats were connected with rivers, they cold be used to inundate the city.

After taking notice of the joint formation of the Vapra and the Parikhā, we now come to the third member of the fortification, namely the Prākāra wall—the parapets raised on the ramparts. It is to be made puccā by filling it up with the massive stone to make it look a grand gigantic structure. Its width is prescribed as 12, 10, 8 hastas as the town is, and the height recommended is 17, 15, and 13 hastas.

The maximum height of the parapet was to be 17 hastas, and minimum 13 hastas. The Prākāra was 12 hastas (18 ft.) in width at its bottom. These parapets were decorated with the battlements like the Kapiśīrṣakas—Kaṅgooras. Their height should be one hasta. Another element of beautification and defence was Kāṇḍavāriṇī, the Chāldivārī.

It may be noted here that the number of parapets, the Prākāra walls upon the rampart (Vapra) was generally one. But Pataliputra is reported to have three such walls. In the Artha-śāstra mention is made of several parapets. Kauṭilya advises odd or even number of these walls with an intermediate space between them. Again one pertinent point regarding these parapets is their height. Too much of height as advocated by some of the texts (cf. Brahmāṇda-Purāṇa, Ch. 103) is a great hindrance to the proper ventilation of the city, particularly the adjoining area. The S. S., therefore, moderates its specification and prescribes the limit of seventeen hastas. Śukrācārya's remarks are more helpful :— (Ch. I)— "The wall of the town is to be made too high to be jumped across by robbers or enemies."

The fourth element in the fortification is the raising of the towers on these parapets in all the four directions. These parapets were thus interspersed at regular intervals (100 hastas i. e. 150 ft.) with towers (Aṭṭālakas) and they were provided with moveable stair-cases, so constructed as to provide the comfortable ascent and descent. On the Prākāra wall were also laid the Kapiśīrṣakas (Kaṅgooras) the battlements and there were also Kāṇḍavāriṇīs (the Chāladivārai), the small wall on this thick wall of Prākāra. In between them, thus was created a Carikā the passage on the Prakāra wall with all kinds of mouldings and projections like Vedikās and Niryūhas. It was also provided with stair-cases and the doors in between for the comfortable ascent and desent (10. 34). Pāṇini and Kauṭilya call this Carikā'—Devapatha

and the following observation of Dr. V. S. Agarwal (vide—India as known to Pāṇini p. 139), is worth quoting:—

"He mentions devapatha at the head of the Gaṇa-Devapathādi, (V. 3-100), which again can be explained only in the light of Kauṭilya. This corroborative testimony from the Arthaśāstra is rather singular since no other work throws light on the meaning of the Pāṇinian word. According to Pāṇini the 'Passage' which resembles a 'celestial passage" (devapatha) is called devapatha (V. 3.100). What can such a passage or road possibly be, so as to observe the comparison involved? According to Kauṭilya, the wide road on the top of the parapet built along the line of battlements (indrakoṣas) was called devapatha (Arth. Text. II. 3, p. 52; Trans. p. 51). The height of the brick fort-wall (Prākāra) above the mud-rampart (vapra) there is stated to be thirty six feet rising from the ground level and the battlements were built above it. The Devapatha extending along the city wall should be understood with reference to its great height resembling the celestial passage (devapatha) in the heavens, justifying the comparison of the former with the latter".

The fifth member of the fortification is the gateways of the town. They were in the form of pyramidal towers of imposing aspect. They were called Gopurams literally the defensive structure of the town and thus fittingly adding to the fortification of the town. The Gopura of Prākāra was the same as Dvāra-aṭṭālaka of much older literature (see Arthaśāstra). It was the principal gateway in the wall of the fort. They formed a characteristic feature of the Indo-Aryan architecture. But, in my opinion, their employment was more common in religious architecture than the secular one. The South Indian temples and the temple-cities are the best illustrations. The S.S. as the founder of the secular architecture refrains from their application to towns and residential houses. These Gopurams have formed the fascinating architectural theme in the works like Mayamata (24th Chapter), Mānasāra (33rd Chap.) and others of their group belonging to Dravidian Vāstu-Vidyā. Their towers consisted of varying storeys, their number ranging from one to seventeen. "The splendid art displayed in the gopurams is indeed wonderful and is a living monumental tribute to the high level of aesthetic culture and to the religious spirit of the Hindus" (T. P In Ancient India 101). These gopurams were the gateways of the splendid edifices of the temples or temple cities. The S.S., in the laying out of the principal entrances of the town recommends as many as twelve principal gates on the terminii of the Rāja-mārga and the Mahārathyā in all the

directions. Their width was nine, eight or seven hastas on the Rāja-mārga and six, five and four hastas on the Mahārathyā. The Artha-śāstra of Kauṭilya mentions four principal gates on the four principal quarters and designates them as Brāhma, Aindra, Yāmya and Sainā-patya, according as they are laid on the North, East, South and West respectively (Book II, Chapter III).

Apart from these principal gates, the S.S. recommends other minor gates also technically termed as *Vaktradvāra* and *Pakṣadvāra*. The former variety is to be placed in the vicinity of the gates of the Rāja-mārga and Mahārathyā ; the Pakṣadvāras are the side doors for the use of towns-men at odd hours when the main gate was closed.

Again these great gateways are to be provided with Pratolī, the gateway in the city wall. The word Pratolī in the S.S. has an imposing architecture, like that of the Gopura. Amarakoṣa (II.II-3) takes it as a synonym of Rathyā, a street and Dr. Acharya in his Encyclopaedia of Hindu Architecture (page 321) writes under Pratolī, "A gate-way sometimes provided with a flight of steps, a small turret, the main road of a town". According to the S.S., it is a storeyed building, of course adjoining the gate-way and having a super-structure of two storeys in which there are compartments (śālās) and porticos (Mūṣīs) and so many other wooden components and the mouldings thereof, to present an edifice of imposing beauty and lustre. It is laid secure with the broad and high flanks of doors—Kapāṭa, (cf. Phalakas) with door bolts called Parigha. The Hindi, Rajasthani and Gujarati word 'Pauri' is derived from Pratolī.

प्रतोली पओली पउलि पोलि पौरि

Lastly another point in this fortification is that these gates were guarded by the sentinels patrolling and there was a sufficient equipment of the defensive arms and weapons such as a *Vyālajālas* and *Śataghnīs* (100 Killer) (cf. Ch. 10. 46).

CHAPTER VIII

INAUSPICIOUS TOWNS

As in the laying out a residential house or planning a temple and building them, utmost care is to be taken by an expert architect, similarly, supreme care is to be bestowed by a town planner upon the planning of the town and housing the different localities both secular and religious, so that auspicious results are achieved. The S. S. lays down:

शास्त्रज्ञः स्थपतिस्तस्मात् प्रयत्नपरया धिया ।
यथावत् कथितं चारु नगरं विनिवेशयेत् ॥ (अ० १०–६६)

The word 'Cāru', beautiful, is significant. After all, architecture is only one of the fine arts. And hence unless an aesthetic experience like that of poetry or painting is produced, it is no art at all.

Moreover, the injunctions as laid down in the scriptures—the ancient manuals of the science, if violated, bad results befall the townsmen, they never flourish to the fullest extent of health and longevity, peace and prosperity, wealth and progeny—the bad results of the bad planning of the town not only affect the town itself, but the whole Nation, of which the town is only a unit—cf. S. S. X-67 and onwards. vide also V. L.

The inauspiciousness or unsuitability or imperfection of a town-plan mostly rests on the occurrence of a variation in the shape contrary to the one deemed fit and auspicious. While the authoritative sources like Mayamata (Ch. X) and Devī Purāṇa (Ch. 72) recommend a variety of good many shapes—square, rectangular or oblong, circular, elliptical, triangular, etc. the S. S. restricts its prescription to only one shape—the square one. The accounts of Agni (Ch. 106) and Matsya (Ch. 217) to some extent are not very different from those of the Samarāṅgaṇa. Apart from the square shape the S. S. can admit of no other shape. It recommends square plan in relation to the towns. The square is the fundamental form of Indian architecture. It is the mark of order, of finality to expanding life, its form and of perfection beyond life and death. It has its sanctity from the Vedic altar. From square as fundamental sacrificial symbolism, the temple architecture was evolved in its likeness. Hence "Bhoja (vide his Yukti Kalpataru) cites with approval, the opinion of Bhaviṣyottara Purāṇa that hardly ever should towns be shaped triangular or circular, while longitudinal or square towns are the

best". "Both concur in the view that long-shaped towns make for permanence, peace and prosperity: while a square capital yields to the sovereign all the four fruitions (catur-varga), piety, means, desire and salvation. Triangular towns annihilate the three powers whereas circular ones are hot beds of many endemic pestilences". Again "it is clear that the rectangular or square shapes were the most favourable with the Indo-Aryan town-planners and were generally adopted in practice. The circular, triangular, multi-triangular or any irregular civic contours were denounced, because such shapes would react upon the planning of sites, and buildings and their orientation" (T.P. In Ancient India—103 & 104).

It is in keeping with this broad outlook of Indian architecture that the S. S. recommends the square shape as the best shape and its corresponding square plan of 64 square, as the site-plan for towns and its other catogeries (S.S. 13-5).

These inauspicious towns as enumerated by the text are:—

1. Chinnakarṇa
2. Vikarṇa
3. Vajrākṛti
4. Sūcīmukha
5. Vartula
6. Vyajanākāra
7. Cāpākāra
8. Śakaṭadvisama
9. Vidik-stha
10. Bhujaṅgakuṭila.

All these forms after which these different varieties have taken their names are not auspicious or at least inconsistent with the standard measurement of a Town-plan. The S S. as we have seen, considers the square plan as the most perfect plan. Let us now take them one by one:—

1. **Chinna-karṇa**—A town whose ears as it were, are cut down, i.e. not in square shape—fear of theft, breaking out of epidemics, rising of the enemies, these are the consequences of this inauspicious shape of the town.

2. **Vikarṇa**—People living in this category of the inauspicious town suffer from jealously, enemity, the absence of progeny, the most univer al curse, and the loss of longevity.

3. **Vajrākāra**—Octogonal town brings about servile attitude of men towards their women-folk. The illnesses of poisons consequent upon too many conspiracies are most common. Agnipurāṇa also condemns this shape (Ch. 106).

4. **Sūcīmukha**—Needle-shaped town is devoid of any prosperity. People living there die of starvation and epidemics.

5. **Vartula**—Circular towns augar ills—the townsmen living there get poor and are deprived of their savings and do not live long and get misery along with their king. But the accounts of Purāṇas like Matsya (Ch. 72), Brahmāṇḍa (Ch. 8) and Kālikā (Ch 84) favour this shape.

6. **Vyajanākāra**—Fan-shaped town abound in liars and people are short-lived; because of illness arising from Vāta and of unsteady minds. Kālikāpurāṇa (ibid) also condemns it and it says, that redoubtable monarch *Bali* had a most *formidable* capital Śoṇitapura and yet was forsaken by fortune; because of its shape like a fan.

7. **Cāpākāra**—A bow-shaped town. It is a bit curious to note that the bow-shape is reckoned as an inauspicious shape by the S. S.; whereas Agni (Ch. 72) eulogizes it as the best variety and the ancient city of Varanasi presents a semi-lunar aspect. Kālikāpurāṇa says, 'the town of Ayodhya of the Ikṣvāku-family, because of its shape like a bow, had earned many victories. But the S. S. has it otherwise'. According to it, those living in this town have corrupt wives, and themselves are impotent.

8. **Śakaṭa-dvi-samākāra**—Resembling two carts, it is altogether an innovation. Here the fear of thief, sufferings, sorrows, fires, are always there. It is also called Dviguṇāyātasaṅsthāna, parallel and longitudinal two towns having the middle belt joined to one another. Such a town is bad from the very beginning actions devoid of fruitions, Brāhmins, are in constant fear, the relatives are always quarreling among themselves, the townsmen along with king are suffering from the loss of elephants, horses, and are least susceptible to the attacks of the enemies.

9. **Diṅmūḍha**—Wrongly oriented, a town brings about the loss of men, outbreaks of fire, fears from women and constant misery. And lastly—

10. **Bhujaṅga-kuṭila**—A town of crooked shape, resembling to a serpent, is also inauspicious—people living there never grow and are in constant fear of the weapons (symbolic of fights), demons, fires, storms and spirits, demi-gods together with bodily ailments.

Now in the end some other varieties of the inauspicious towns are cited. We find that triangular or drum-shaped (Yava-madhya) towns are also reckoned as inauspicious and Kālikā-Purāṇa is more emphatic in saying that this variety of the shape (Mṛdaṅgākṛti) anihilates the dynasty of reigning king, as Laṅka, the Capital of Rāvaṇa, the king of Rākṣasas, being drum-shaped was conquered and left in debris.

CHAPTER IX

CONCLUSION

This brief dessertation on the town planning art as promulgated by the ancient Acharyas and practised by the master architects—the town-planners especially as it is hinted in the succint but brief exposition by the Samarāṅgaṇa Sūtradhāra, a medieval treatise on the science of architecture, is evidence of the cultural life of the age in which these norms were propounded. A town or a city is the embodiment of the culture of the townsmen and citizens who shape it, build it and beautify it (or make it ugly as the case these days is). Hence a study of the past is an asset for the present. No doubt the present is an outcome of the past, nevertheless the spirit of the age, the influences of the times together with the political, social, religious and spiritual transformations representing the broad cultural waves fostered in a particular age, all these have their deep and abiding influence on any activity, be it an artistic activity or a literary activity. If the literature is the mirror of society, the art can not remain aloof. This is a general dictum and exceptions prove the rule. Because sometimes a Vālmīki or a Vyāsa or a Tulsidas, instead of mirroring the society presents a mirror to it. The basic norms of the Art as founded by the ancient Acharyas of great renown have this characteristic. They are never swayed by the petty urges and petty patterns of new situation affecting the society. What of the measurements, shapes, mouldings, decorations, (paintings) etc. in the art of town-planning all these indicate that a town or a city is not only a symbolic expression of the National culture, a gigantic canvas on which the comunity life is portrayed, but also one of the finest methods of inculcating and propagating culture. The stupendous ostentatious and ornamental buildings with their inspiring arches, ennobling domes, religiousity and spirituality, nationality all round, in the shape of pictorial representations and illustrations of the great soul-inspiring achievements of the heroes of old, the mythology, the poetry and the aesthetics all imbued with harmonising and enobling sentiments. All these have intrinsic value and we can not bid good-bye to them. It is our sublime heritage. To put it in a nut-shell the three words—city, citizen and citizenship are a trinity round which the rising of the cities, there planning and construction and housing habitation should revolve. Therefore, any national planning-scheme sponsored by the State must have these basic considerations for a

true synthesis of the cultural background on the one hand; the spirit of the age with its manifold demands on the other, together with the purpose the evolving of a beautiful, truthful and beneficial life.

With all round development in science and art, there is no dearth of the scientific and systematic canons of the town-planning in the present day world. Though, the fundamental canons of town-planning have not changed, some of the elaborations as per the characteristic requirements of the modern age—the Commerce, the Industry, and the Transport, the means of communication and the like, have revolutionised the very character of town-planning, as we had in ancient India, or for the matter of that in any ancient country of the world. The fortification so elaborately dealt with as a principal feature of the ancient and medieval town-plans has been bidden a goodbye; the temples, the dedication of the plots or wards to the different deities of the Hindu pantheon forming the very back-bone of the site-planning and the folk-planning, have become obsolete and they are only a matter of solitary ritual with no intrinsic value attached to them. In matters of town-planning in India today, the knowledge of the ancient town-planning canons must form an integral and indispensible discipline of a town-plannner. Copying the West is not only bad but injurious also. It can not give us the desired result.

In a country, like India, where the texture of living and conduct, thought and belief, food and drink, clothes and comforts, privacy and family traditions all these are vitally different from those of the West, a universal standard of the building and amenities of the accommodation thereof can not be visualised, because the climate differs, the soil conditions are divergent and the pattern of living poles apart. Hence the genius of the town-planner is tested in taking basic factors into full account, while constructing a new township in an ancient country like India.

Now before proceeding with the question how the ancient town-planning system can afford some guidance and contribute some canons in the modern town-plans of India, let me have a bird's eye view on the modern requirements of a town.

We know that character of the modern civilization has been revolutionised on acccount of the scientific inventions and thereby affecting the human life in every walk of life. The Railway lines have necessitated the planning of the railway stations; the introduction of the automobiles conveyances like motor-cars, buses, trams, etc. have necessitated the planning of roads in a manner best suited to the traffic circulation and avoidence of accidents and congestion. The Industrial developments, the Inter-State and International commer-

cial transportation have necessitated the establishment of factories and mills with the consequent evil of slums etc. The complex modern structures and functions of the government running into manifold channels requiring the Secretariats, employing thousands of people to carry on the work, together with the modern institutions of Banking and Insurance as well as so many other public departments and offices and lastly (though not least in importance) the rise of educational institutions lying scattered in every part and locality and street of the town, have enormous demands for the suitable buildings and spaces. These are some of the characteristics of a modern town life. Hence in planning of a town all these manifold currents of civilization require major adaptations in the town-plans which we have evolved in the past.

Hence the modern town-planning is not so much concerned with founding new towns as with the improvement and the extension of the existing ones in order to provide, not only the symmetrical, systematic and comfortable residential houses, the wide roads for transport and traffic, the open spaces for play, recreation, fresh air and plantation, parks, gardens, orchards, etc. as well as the railway lines, pipe-lines, drainage and air landings, etc., but also to improve the living conditions of the labourers—the mass of humanity working in factories and mills, by slum-clearance and providing better houses. To cope with the increasing population it has to extend the town by creating muhallas all round the town and thus laying out a new city altogether. Many cities in India have been transformed beyond recognition in altogether new cities. The modern town-planning has also a responsibility to provide the expert guidance for the site-planning of the new public buildings like educational institutions, laboratories, banks, secretariats, market-places, the town-halls and so on and so forth.

For all this the modern town-planning canons suggest the planning of new towns and the improvement of the existing ones by what is called the zoning method. All the respective zones as per requirement of the different and divergent necessities of buildings should be separated and zoned out in separate wards in order to avoid congestion and haphazard look of the town.

Thus with all the elaborations of the manifold technique of the modern town-planning we find that it fundamentally does not differ from its ancient counter-part. Now the problem as already anticipated as to how far these ancient norms of the town-planning can be adopted by our national town-planning departments to evolve a technique of town-planning characteristic of our genius and also

characteristic of our age, the culture and climatic conditions together with the complex currents of life as they exist today.

I, therefore, suggest that the beginning should be made with villages. The town-planning departments these days are more concerned with the existing cities or establishing new ones. This is not enough. Let the villages form the unit of the national planning of New India. From the point of finances, the greatest hurdle in translating any master-plan, so much talked of in the contemporary India in relation to many cities, the beginning with the villages not only obviates this difficulty but also provides a suitable channel through which the increasing population of the big cities and noted towns may pass out with ease and comfort. It will, therefore, require a Town-Planning Act in which an adequate provision would have to be made for restricting the population of the town. To begin with, let no one, having no connection with the town—service, education or alike, be allowed to occupy the town proper (cf. Rule of the Matsya Purāṇa). The elite, the wealthy, the princes, the retired, all should be asked to occupy the suburbs on the out-skirts of the big cities. Thus in the evolution of the modern towns two norms emerge—planning of the suburbs, as branch-towns, the Śākhā-nagaras in the terminology of the Samarāṅgaṇa Sūtradhāra (cf. S. S.'s Kheṭa, Kharvāṭa, Nigama), and the planning of the village as a unit of National Planning (vide S. S. Chapter X. 82-87).

Another important thing in connection with the remodelling of the existing towns is that the available accommodation in the town should be allotted not to individuals but to groups. This is what the ancient texts on town-planning mean by site-planning and folk-planning. Let the religiousity and the Varṇāśrama-dharma be not adhered to, but the fundamental background of this site-planning and the folk-planning, namely, the housing together with a group of people belonging to a common way of life and conduct, must be there. This will not only evolve the greater brotherhood in people, but also usher a new consciousness of organisation, co-operation, association, the essentials of Democracy which has become the modern slogan as the be all and end all of life.

What about the centre and the central places? Let the town-hall—the temple of modern Democracy be central scene around which all the movements of the town revolve. Let a big banyan tree or a Peepal or Neem or a shed i. e. Maṇḍapa, the Sabhā—the assembly hall, be substituted for the town-hall in the village-planning for the emergence of new towns in India. Thus two more canons emerge—the folk-planning and the planning of the centre. But the

question is that the modern life with such a vast socio-economic patterns like banks, insurance offices; municipal-boards, educational institutions, police outposts, and so many other public departments and establishments, can not be well attended to and accommodated unless some bifurcation of the entire town-plan is re-adjusted to provide the different buildings, for serving these institutions. For this, modern system of zoning should be incorporated in our town-planning canons. They must give good results. They are to some extent a modern edition of our ancient site-planning—housing a particular community or corporation, profession, or institution on a particular site.

A very pertinent question regarding the location of the railway stations, mills, factories, the cinema-halls and the business centres, the line of shops, stalls, the markets, etc. still remains to be solved. As regards the Railways, they form an essential constituent of any modern town for the transport, the mills and factories however, must not be distributed in every town. For the industrial centres, a separate category of town called Pattana or Puṭabhedana by the ancient masters, should serve as business centres and industrial development. As regards the daily needs, the co-operatives in each and every block of a town should organise these daily necessities of life with an active co-operation from these special towns scattered on a relatively small distance in every part of the zone. This brings us to the zoning plans and regional planning—the fundamental criterion of the ancient town-planning system. So much is regarding the laying out of the new townships, but the problem is not yet solved. What about the existing towns with their clumsy growth, over-population, slums, insanitation, absence of ventilation and congestion etc.? How to improve the town by way of extension?

In ancient times every king had his own permanent civic architect and city superintendent in his capital with many subordinates and assistants who were well-versed in the art of planning and upkeep of cities. The civic architect, besides his other duties, looked after the improvement of the town according to its requirements. "Though we do not meet with any written records about the existence of an organised board like the modern Improvement Trust and the like, yet we may, without largely drawing upon imagination, fairly presume that the permanent officials of the king such as the civic architect, the city superintendent, together with their assistants constituted the proto-type and served the purpose of the modern institutions organised with cognate objects. The elaborate way in which the treatises on Indo Aryan Town-Planning allot sites and determine the areas and orientation of roads, wards, residential buildings, the royal palace, the council

hall, parks and reservoirs and secure proper lighting and ventilations by fixing the space intervening between two houses or ascertain the number of storeys and the respective heights in case of particular building and edifice, conclusively establishes that the master builder possessed and exercised substantial control over all building-operations in the city. So elaborate and intensive indeed was the control that even absolute private-ownership of land in the city was not allowed to some extent. There seems to have been several departments or divisions of function: one was entrusted with the construction of roads, another with tanks, gardens, artificial forests and palaces; the third with fortification and the fourth with buildings. All these departments had also engineers, to wit, the Sthapati and others were under the charge of a minister called the Gṛhādyadhipati (literally the lord of house and the like), who held the portfolio of Superintendence and Planning of the city. Śukrācārya says (Ś. Nītisāra Chapter II) that he must attend to palaces, moats, forts, parapets, statues, weapons, tanks, wells and reservoirs, pipes and other engineering works. Surely the foregoing are exactly those functions with which the modern Municipalities and Improvement Trusts are concerned" (vide page 169-170, T.P. In Ancient India).

The peculiar defensive character (walls and ditches all round) of the ancient towns in India stood as a hurdle in its extension. One of the methods of meeting the over-congestion and over-crowding of the population was by expelling the low-class people out of the city. Another way as suggested before, was the Matsya Purāṇa formulae (Ch. 217): No person should be allowed to remain in the city without any necessity or purpose. The rule of the Devī Purāṇa (Ch. 72) is— "The low-class people (Prakṛti) should be quartered outside the city." Another method (as per the account of the Harivaṃśa (Vishṇuparva chapter 58) is the reconstruction of the town as well as its expansion on the outskirts of the city. This leads to a very sound canon of the improvement. It is laying out the suburb—to put in the terminology of the Samarāṅgaṇa Sūtradhāra—the Śākhānagaras (branch-towns) as already spoken of. The Śabda-Kalpadruma gives the following definition of the Śākhānagara—the subsidiary town: "The town which is constructed in the vicinity or on the outskirts of the main city, to accommodate its overflowing population is termed branch town (Śākhānagara) from analogy with the branch of a tree." Instances of its expansion are not unknown in History, and we can adopt this method for the good of our land. We are doing no doubt in cities, but our bold policy should be to make villages as our śākhā-nagaras. These ultimately will result into the garden-villages or garden-cities, so much preferred in the modern world.

PART III

CIVIL OR SECULAR ARCHITECTURE

(Residential Houses for Middle Class People)

PART III

HOUSE ARCHITECTURE

Introductory

House-architecture really has four distinct branches according to ancient Indian tradition. Houses principally may be classified firstly into residential houses for middle class people—vide the folk-planning in which houses in ancient India in a village or town were planned according to the castes and professions; secondly into those gorgeous mansions suited to the nobles and princes—the palaces, the Harmyas and the Rāja-prāsādas; thirdly into what are called abodes of gods, the temples, the Prāsādas and Vimānas and fourthly into the public buildings which are planned and constructed for the common use, like the Viśrāmaśālās, the libraries, the theatres, the picture gallaries etc , The common public pools, ponds, tanks, Vāpīs and wells, etc., will also fall in this last category.

Now as the genius of architecture in relation to these four classes of buildings has been distinct in nature and definite in its contributions especially in case of the secular architecture, the aristocratic architecture and the devotional architecture, the Janabhavanas, the Rāja-bhavanas and the Deva-bhavanas, it is, therefore, necessary to treat these three classes of buildings separately. Accordingly these three parts are devoted to the exposition of this genius of the Hindu architect. Public buildings being the concern of the state will be included in the part devoted to palace-architecture.

It has been wrongly srumized and commented upon that India did not evolve secular planning or the civil architecture. A study of the Samarāṅgaṇa-Sūtradhāra; a medieval treatise on the science and art of architecture is a definite repudiation of this misconceived opinion. This text though written by a king in the atmosphere of palace-court is really the landmark in the civic-planning in India and harbinger of the residential houses most suited to the middle class people what are designated as Śāla-bhavanas ? The story of the śālās is fascinating indeed and their antiquity goes to the socalled primitive age when man evolved the first house on earth.

Accordingly this part is devoted to the exposition of the Śāla-bhavanas, the residential houses suited to the bulk of the population

or the middle class people. It is, therefore, required to briefly indicate the treatment of this part. In the first place it may be remarked that any building operation whether secular or religious was preceeded by some important preliminaries like the examination and selection of the site, its plotting, etc. what is called Vāstupada-vinyāsa, the determining of the sites, the Vāstu-pūjana, the foundation ceremony the formal digging, the Balidāna, Halakarṣaṇa, Aṅkurāro-paṇādi and the placing the Kīlakas and the Sūtrapāta-vidhi etc., along with the festive celebration to honour the architect-mason and the labourers etc., etc., though may be deemed as non-architectural matters in the e days, are really having the fullest of architectural import as the human destinies are always guided by the superhuman agencies and naturally this truth was never lost sight of by architects of old. All these matters will find some treatment in the first chapter of this part entitle 'Preliminaries'. The second chapter will deal with buildings in general, their different categories etc, and from the 3rd chapter the proper subject matter of this part namely the Śālā-buildings will be taken up which may again be viewed as the exposition of the four principal topics namely the origin and development of the houses of manifold varieties and the general characteristics of the residential houses for the common people the śālas—meaning classification and Gṛhasaṃyojana etc. (Chap. III and IV); the planning of the houses along with the house-plans and building bye-laws and its construction—the material and masonry etc., (Chap. V, and VI); the principal architectural components like the door, the pillar, the roof and so many other accessories like Alindas, Bhadras, Mūṣas, etc., et.c., (Chap. VII, VIII), the decorations and the equipment, the bhavana-bhūṣā and bhavana-sajjā. (IX) and lastly the deffects of the houses, the bhvana-doṣas (X).

This is the broad indication of the subject-matter to be attempted on this part; in the end however we may conclude with a purposeful motive namely how far these Śālas can be accomodoted in our National-house-planning in India today and how far the ancient Indian contributions in the realm of this most vital field of our life can be appreciated by us even now.

CHAPTER I

PRELIMINARIES

Preliminaries in house-construction may be divided into two groups: (a) Non-architectural and (b) architectural. Both may be tabulated as hereunder:

(*a*) Non-architectural.	(*b*) Architectural
1. Vāstu-pūjana	1. Orientation—Śaṅkusthāpana.
2. Balidāna	2. The site-plans—Vāstu-pada-vinyāsa
3. Halakarṣaṇa	3. Measurements—the Hastalakṣaṇa.
4. Aṅkurāropāṇa	4. Āyādiṣaḍvarga.
5. Śilānyāsa	5. Patākādiṣaṭchandas.

Let us first take up the socalled non-architectural preliminaries, which according to fundamental genius of Hindu science of architecture are all equally important. The Vāstupūjana and Balidāna, though ritualistic in performance, are primarily concerned with the philosophy of architecture, where the site is no more a bare earth, but a transformed entity, the Life Divine—this we have already seen—vide Fundamental Canons of Hindu-Architecture (Vāstupada-vinyāsa), Chapter VI Pt. I. The practical application of Vāstu is yantric in nature. The Vāstu-puruṣamaṇḍala, the site-plan-diagram of a building according to Nārada (the Vāstu-Vidhāna VIII 26) is a yantra. It is, therefore, an artifice in which the ground (bhūmi) is converted into the extent of the manifested universe. "The nameless, formless entity which is bound in this case to the spot within the square maṇḍala is henceforth known as Vāstupuruṣa. The components of the artifice are: the ground on which the Maṇḍala is drawn, the form of the Maṇḍala, and its name together with the names compressed in its form. The details of Balidāna-vidhi may be avoided as an indication of it is given in the summary of the Samarāṅgaṇa—Chap. V Pt. I. The imports is: "With offerings gods, spirits and demons are bid to leave. This gracious gesture releases their forces and sets the site free from all particular associations. In this way too, it is steadied and expurgated. Emptied of its former contents, it retains its receptiveness and the power to assimilate new ones", finally it will have to be levelled—vide Halakarṣaṇa to be taken up ahead. Similar details of the Kīlakasūtrapātavidhi are also given in the summary referred to, where an interesting feature is the presents enjoined to be made to the architect masons and labourers, as in their happiness and satisfaction lies the completion of an architectural undertaking. We will have an

occasion to see that in the temple-building, the Kartṛ-kāraka-vyavasthā is very important. The Kartṛ, the architect of a temple has a unique position which may be as good as hereditary, therefore, it is no more a wage-earning, it is a dedication from the father to the son and so on and the details of Halakarṣaṇa and Aṅkurāropaṇa are more eloquently found in the texts belonging to the Dravidian School of Indian architecture like the Mānasāra and Mayamata. In the former the concluding part of the fifth chapter gives a minute description of the oxen and the plough to be used in ploughing the selected site. Now when the ground is tilled it is purged of the past and under auspicious stars new life is entrusted to the soil and another cycle of production begins, an assurance that rhythm of nature has not been interfered with. The sowing of the grain—the Aṅkurāropaṇa is a final offering to the memory of the spirits who have left the place and gone elsewhere in peace. It is also the first offering in the newly acquired land where the germination of the seeds leads to the fulfilment of the undertaking.

The Śilānyāsa has got two aspects—architectural and non-architectural. The latter may be understood as ritualistic, the details of which may be purviewed in the summary and the S.S. already referred to. In the Mānasāra however, Śilānyāsa has been treated in its better and more architectural aspects and readers may read its datails in Dr. Acharya's summary of the Mānasāra—vide H. A. I. and A. pp. 106-8. It would suffice here to say that in the Mānasāra the foundation, the Garbha-nyāsa is classed under three heads—for buildings, for villages etc , and for tanks, etc. The last named foundation meant for tank, well or pool, is said to be as high as the joint palm of man. As regards the foundation of buildings it is first divided into two classes, as it belongs to temples or to human dwellings. Of the human dwellings, there are four classes according to the four castes. The depth of the foundation-pit is stated to be equal to the basement. The best ground selected for foundations is excavated to the depth of a man's height with uplifted arms. The bottom of the pit thus excavated should be rocky or water and the pit is filled with sand and water which are closely pressed and hardened by means of wooden hammers shaped like the elephant's feet. Upon such foundations, the strength whereof varies according to the weight of the construction, various structures are constructed.

The details in other works like Mayamata, Śilparatna and Tantrasamuccaya and Īśānaśivagurudeva-paddhati to all intents and purposes are identical.

N.B.—Architectural preliminaries have already been fully dealt with—vide Fundamental Canons of H. A. Ch. VI Pt. I.

CHAPTER II

BUILDINGS IN GENERAL

The very title, the Samarāṅgaṇa-sūtradhāra is an index to its distinct place among the extant manuals of the science of architecture. All the manuals go by the name of the subject or the author. The grand and eloquent title of the book— 'Samarāṅgaṇa Sūtradhāra', literally means an "architect of human dwellings":—

सम्यञ्चि अराणि समराणि (तथा भूतानि) अङ्गणानि (एतादृशानि भवनानि शालभवनानीत्यर्थ), अथवा समराणि संयुक्तानि अङ्गणानि, येषां तानि, (भवनानीत्यर्थः) तेषां सूत्रधारः ।

Thus the house architecture, the secular architecture as opposed to the devotional architecture has got a distinct place in this manual of architecture. A perusal of the extant Śilpa works like Mānasāra, and Mayamata, will convince the reader that buildings in general are described in one category alone. If there are some additional delineations, they are just like appendices to them differing only in degree and not in kind. Let us take for instance either Mānasāra or Mayamata (as the arrangement of the chapters and the subjects treated therein are more or less similar); we find that in Mānasāra all the 98 types of mansions, either may be taken as the residences of gods (the Mānasāra temples) or of men or the gorgeous mansions or princely palaces. Similar is the case of Mayamata or any treatise on the Vāstu Śāstra. In my opinion there is a complete absence of fundamental distinction to be made in the two realms of architectural planning belonging to two different and divergent sets of buildings— Mānava-Vāsa and Deva-Vāsa. In India, or for the matter of that, in any country, the shape, super-structure, decoration and ornamental mouldings and the like, together with the specific materials used and the planning of the accommodation etc. in buildings, like temples, churches, cathedrals, mosques or mausoleums are fundamentally different from the buildings to be used as residential houses. Naturally, therefore, while we have the grandest and largest of the Prāsādas in the monuments, the specimens of the secular buildings—the residences of the common run of men (barring of course the royal palaces) are hardly found. The thatched houses made of mud, bamboos and easily available materials from the local surroundings

which have been our typical residential quarters from times immemorial, should also have some architectural traditions.

The S. S.'s classifications of the buildings are in keeping with the needs of not only the different strata of men but also the different orders of gods and goddesses. The residential houses for the ordinary run of men as well as those belonging to the middle classes and the higher classes of Brāhmaṇas, Kṣatriyas, Vaiśyas, and the priests, the commander and the like, all comprising both the nobility of the clan and the aristocracy of mind and spirit, are a distinct feature of Bhoja's contribution to the science of architecture. Samarāṅgaṇa's classification of the houses may be grouped into the following three categories:—

1. Popular residential houses—Śāla-bhavanas.
2. Palaces of the kings—Rāja-Veśmas.
3. Temples—residences of gods, Prāsādas.

All the manuals other than Samarāṅgaṇa have confused the residences of men and the gods alike, this point needs elaboration. This kind of enumeration or classification of the buildings is not only unscientific but against the tradition. We know that in India for a long time the stone architecture was a taboo for the residential houses of men. It was only for the gods that the stone could be used. That is why the earliest civil architecture is wooden architecture. Later on, as time passed, stone was permitted in the Prāsādas of kings and the other higher people and gradually it was adopted in the secular architecture also.

Moreover the science of architecture is a social science and it must take into its account the needs of society as a whole. Everyone can not be expected to build a lofty Harmya or high-domed Prāsāda. There must be ordinary houses, secular or popular houses, fit to be the residences of the great populace having ordinary means. Moreover, apart from its economic point, the point of position or station in life also is important. In the S.S. these different sets of buildings with their different locations are characteristic also of the materials to be used in them. The Śāla houses represent the wooden architecture. The time-honoured building material from hoary past has been the wood, hence its nomenclature Śālā (Śākhā, branch of the tree) is after the names of the parts of tree (cf. Kāṇḍa etc.). The ostentatious buildings of the Prāsādas represent the stone architecture in its zenith in the S. S. All these will be fully dealt with in their respective parts.

Here it is enough to say that this demarcation of the buildings and their categories is a distinct original contribution of this work.

Out of its 83 chapters, there are about a dozen chapters exclusively devoted to House Architecture (see "The Reconstruction of the S. S. Chap. V). It also devotes two separate chapters to the exposition of palace-architecture—the many-storeyed mansions and large edifices without storeys, serving all kinds of needs of a ruling monarch, the residential quarters (Nivāsabhavanāni, Ch. 30), the pleasure palaces (Vilāsa-bhavanāni, ibid) together with a vast paraphernalia of establishments—the court, the coronation-hall, the abodes of ministers, commanders, queens, princes, princesses and pleasure-gardens, orchards, etc. etc. (vide Ch. 15). Other buildings not falling in these three broad divisions of houses are: the assembly halls, the sheds and stables for elephants and horses. They are also dealt with in separate chapters (see "The Reconstruction of the Samarāṅgaṇa Sūtradhāra").

Thus the picture of the various varieties of houses dealt with in this treatise emerges in the following tentative classification :—

1. Common residential houses—Śālā houses.
2. Uncommon houses—the houses of kings.
3. Special houses—Assembly Halls and Council Chambers.
4. Houses of animals—sheds and stables for cows, horses and elephants.
5. Prāsādas or temples may be classed as extra-ordinary houses as residences for Gods together with their accessory buildings for piety, ritual, shelter and the ceremonies of a religious nature—the Maṇḍapās and Jagatīs.

NB.—All these five types of buildings may, however be, reduced to only three broad classifications as treated ahead—vide Pt. IV:—

1. Residential Houses,
2. Palaces and its accessory buildings and
3. The Public and State buildings.

CHAPTER III

ORIGIN & DEVELOPMENT OF HUMAN HOUSES

The story of the first House on Earth.

Houses, I have already pointed out, are of manifold denotation and connotation. *Harmyas*, *Vimānas* and *Prāsādas* are also houses where higher people, the rich people and the gods are housed. Their origin shall be dealt with in a separate chapter (vide Part V. on Temple Architecture). Here in this chapter I have to delimit the universe of discourse to the residential houses of men. And for this latter category, the word Śālā (शालाः सन्ति अस्मिन् इति शालः) with its characteristics of courts, chambers, rooms, porticos, etc. as opposed to the storeys (cf. Vimānas and Prāsādas) is used. The name Śālā for a residential house has a very interesting story. It is also suggestive of a great historical and anthropological truth. In the 6th Chapter of the S. S. entitled "Sahadevādhikāra" Bhoja says that in the hoary past, people living in Bhārata-varṣa, resided in forests, on the banks of rivers, on the mountains, and underneath the shady Nikuñjas. Once they entered heaven and began to roam there and enjoy themselves with the denizens of heaven—the Gods, under the all-producing and all-giving shade of that renowned Heavenly Tree, Kalpa-Vṛkṣa. This went well for a good time. But men as they were, they got arrogant and belittled the glory of the Gods. They, therefore, were condemned to come down to the Earth. Thereupon they were very sorry. For their sustenance, now there arose the Parpaṭaka—a tree, giving tiny fruits. It however, got extinct. Hence their condition was more pitiable than before. Now Śāli-taṇḍulas appeared on earth. They were very delicious to eat. Being afraid, lest this might also get extinct like the Parpaṭaka, they began to hoard it, and hoarding we know is bad for all times. The result was that the lust for hoarding gave birth to other evil consequences—greed, envy, jealousy, and what not. In due course greed became instrumental in giving birth to Manmatha (passion) which led them to have attachment towards women, which in its turn led them to form themselves into couples—*Dvandvas*. This Dvandva—the abode of suffering and misery, is well-known. Misfortune again overtook them, and the Śāli, the main stay of their maintenance became full of husks and chaffs which caused the Mala-pravṛtti due to the eating of the Tuṣa-dhānya. Thus all their glory, all their Puṇyaślokatā, their immortality and

longivity were gone. Their bodies then became susceptible to illness. Therefore, in order to ward off the inclemencies of weather and to seek privacy and shelter, they then thought of erecting refuges in the shape of śālās, mainly through the branches, i. e. śākhās. This is the story of the origin of the first house on earth for the man to live in and to be happy.

Similar accounts in the Mārkaṇḍeya (Ch. 49) and Vāyu (Ch. 8) Purāṇas also corroborate the truth that the primitive house, the first house on earth had the tree as its model. Dr. Acharya in his "Encyclopaedia of Hindu Architecture" says: "Trees are stated (Matsya Purāṇa VII, 83-120) to have supplied to the primitive men the model of his future house. Śālā (house) is stated (VV. 117-120) to have been derived from Śākhā (branch) because originally branches were arranged lengthwise, breadthwise, crosswise, up and down and thatched to make the first house".

Thus it is evident that Śālā primarily means a thatch of straw (Chāla) for shelter of men or their cattle and stores. Later on this acquired more and longer denotation of such stalls and sheds. As time passed and its use was in great vogue, it came to mean a house in general (cf. Śālāpati—house-holder). Finally, as is even today, it has come to mean a single section or a single room of a house as is clear from words like Agni-śālā Patnī-śālā, Gośālā, Vājiśālā, Gaja-śālā, etc. etc.

The Sūtra literature embodying the earliest Vāstu-Vidyā, fully supports this tree-model of a primitive house. In the rituals the central part of the site called *Vāstu* has been an object of especial veneration from the very earliest times. The existence of a central post as directed by Sūtra writers like Aśvalāyana (II. 8) at this point, has served as a motif for the dwelling places. And "the idea of a central post inside the dwelling indicates that the primitive house was a construction over and around this post. The shape of the construction seems to suggest a close resemblance of a shady tree which provided shelter to the primitive man from sun and rain at a time when house building was unknown" (T. P. Bhattacharya Canons of Architecture, page 4).

The account of the origin of the house which we find in the S. S. and corroborated by Mārkaṇḍeya, Vāyu and Matsya Purāṇas and the importance attached to the central post as is evident from the rituals, suggests that the primitive building, devised on the model of a tree was one with a central post as the trunk and the thatches in all directions as the outstretched branches of a tree.

Tree as the model of a house is further supported by the classification of the pillars and other different parts of a house having its basis on the different parts of a tree. In the Mānasāra in its chapter named Stambha (XV), the five main pillars are called *Brahmakānta, Viṣṇukānta, Rudrakānta, Śiva.kānta* and *Skandakānta*. As suggested by Dr. Tarapada Bhattacharya, I also believe that the word Kānta points to the trunk of the tree (called Kāṇḍa) being synonymous with the shaft of the pi lar. The word Kānta, as is used in the nomenclature of these pillars, is a later variation of the word 'Kāṇḍa'. Similarly the door jambs in practically all the manuals on the science of architecture (see S. S. Ch. 28) are called *Śākhās* (the branches) from the use of branches of trees in their construction. Again the lintel of the doorway was similarly called as "*Udumbara*" evidently from the use of the fig wood in making these pieces. Thus earliest connections of primitive dwellings with the tree appear all the more probable, as we find that the vegetable kingdom was the first to be utilised for all necessary materials of house building.

This is in brief the origin of the house and its later development, from the humble cottages of leaves to ostentatious temples and palaces, will form the story of the subsequent pages of the Study.

CHAPTER IV

ŚĀLĀ - HOUSES

(General characteristics—the meaning and classification etc.)

In the last chapters something has been said of these śālā-houses. I have distinguished them as private houses, residential houses suitable abodes of the common man, the middle class people and the humble people who according to the stratification of society belonged to different castes and professions as opposed to the uncommon houses, the ostentatious buildings and the extra-ordinary houses, the great edifices like temples—Prāsādas, Vimānas, etc., best suited only to kings, to the rich and to the divinity.

Though from the point of view of the Śāstra, a fulfledged code of house-architecture in relation to the common residential houses did not attain its maturity by the time of the S.S., it nevertheless, cannot be said that this class of buildings did not exist in India. Numerous references in the Epics—Rāmāyaṇa and Mahābhārata (cf. C.I.A. pp. 37.45), the Jātakas (ibid 53) and Kauṭilya's Artha-Śāstra (ibid 81) illustrate the fact that these ordinary dwellings were undoubtedly similar to those which are found in the villages of India even today—thatched houses with wooden construction of the roofs and the masonry of mud-walls having verandah (Alinda) in front and the Koṣṭhas (the śālās) all round the court. They were mostly the Catuśśāla variety, and abounded in the country. Although the plans of these exhibited considerable variety, they were all based on the same principle. According to the S.S., (18.18—19), the unit of their design is the open quadrangle surrounded by chambers (śālās) and this unit is repeated two, three, four or more times according to the needs of the accommodation of the occupants.

Again it also cannot be said that the Śālā-architecture is completely absent from these works, but the śālā-buildings as described in works like Mānasāra, Mayamata and Kāmikāgama, etc., are at par with the lofty harmya or vimāna class of many-storeyed mansions and thus they represent a later phase of Indian architecture when the use of stone was not taboo in private residential houses. The Kāmikāgama is helpful in supporting this view-point, as will be presently shown. Religious buildings must not and could not be made in the same fashion as the civil ones. All ornaments, all pro-

fusion of decorative architectural motifs were reserved in the temple-architecture. The Viṣṇudharmottara clearly lays down that Sudhā and Śilās should be used in houses of gods: Sudhā and Śilā should not be given in gṛha (the residential house) (ibid 30). It is for this reason that ostentatious Prāsādas survive, while no specimens of civil-architecture in stone of the ancient Hindus have survived to our times. Indians did not care to build their residential houses in the ostentatious fashion. They lavished all energy and money in the building of temples, the high edifices, the crowning achievement of Indian architecture, both in the manuals and the monuments.

Śālā class of buildings on which the S. S. has bestowed so much attention means a residential house and differs not only in shape, materials and construction but also in the use.

Now the question arises: how do we explain the characteristic of stone architecture in Śālās as works like Mānasāra attribute to them; but before proceeding with the examination, let us take a brief notice of the characteristics of Śālā buildings as presented by these works.

Take for instance the Mānasāra chapter (XXXVI) named Śālā. In this chapter Śālā is used mostly in the sense of a house. Śālās imply both temples and residential buildings for Brāhmaṇas, Kṣatriyas, Vaiśyas and Śūdras. Their characteristic features as single buildings may be seen :—

शालायाः परितोऽलिन्दं पृष्ठतो भद्रसंयुतम् ।
पुरतो मण्टपोपेतम् ... ... ।
एकानेकतलान्तं स्यात् चुल्लीहर्म्यादिमण्डितम् ।

Like villages, Śālās are divided into six classes, namely Daṇḍaka, Svastika, Maulika, Caturmukha, Sarvatobhadra, and Vardhamāna. Some of these, with a certain numbers of halls are stated to be temples, while others varying in number of rooms are meant for the residences of different castes. A distinction is made with regard to the number of storeys they should be furnished with. The maximum number of storeys a śālā has, is twelve as usual. All the storeys of all these śālās are described in detail. Thus this is the picture in bare outline, presented by the Mānasāra as summarised by Dr. P. K. Acharya (vide Encly. of Hindu Architecture, page 485). It may be noted that these Śālās—the many-storeyed mansions, consist of rows of buildings from one to ten, and as pointed out they are many-storeyed structures, the number of storeys varying upto twelve. Regarding

their use, Dr. Acharya adds, "The huge buildings are naturally meant for kings, to the nine classes of whom they are assigned in accordance with the importance of the mansion and the rank of the king" (Hindu Arch. In India & Abroad, page 121). In my opinion this is a very advanced stage of the evolution of the Śālā type of structure. Its architectural affinity with temple-like super-structure is beyond doubt. The underlying characteristic of the Śālā structure —the rows of buildings from one to ten, moreover, is preserved here. Also their essential components like Alindas and Bhadrās are also there, but the application of the storeys in the śālā houses is against the genius of this class of architecture, as primarily it was meant as an abode of men with limited means and limited requirements.

The Kāmikāgama as referred to before, is more helpful. There are two important notices to be taken as is evident from the following quotations (Ch. XXXV. 1.193a) :

(i) एकद्वित्रिचतुःसप्तदशशालाः प्रकीर्तिताः ।
तदूर्ध्वं त्रित्रिवृद्ध्या यावदिष्टं प्रगृह्यताम् ॥
ता एव मालिकाः प्रोक्ता मालावत् क्रियते यथा ।

(ii) शिलास्तम्भं शिलाकुड्यं नरावासे न कारयेत् ।

(cf. Ency. H. A. p. 485-6)

In the first quotation, the rows of the Śālā are termed as Mālikā —the garland, and the Mālikā is a class of many-storeyed mansion. Therefore, the previous thesis, that these indicate a very advanced development of the śālā-architecture, is again illustrated here. But Kāmikāgama does take śālās to be the residential houses for men; otherwise, tabooing the stone pillars and stone walls in the construction of the śālā buildings must not have come forth (vide second quotation). Because the use of stone in buildings for men was a very late introduction (cf. C. I. A. ch. XXVIII). This contention that śālā buildings were primarily meant to be human dwellings for men, is further supported by the Vāstu-Vidyā. It says :—

मानवानां गृहाः प्रोक्ता वसवस्ते ककुब्गताः ।
संस्थानभेदेन ते ज्ञेयाः पञ्चधा स्युः प्रमाणतः ॥
स्वयोनिन्यासगतयो दिग्विदिक्षु च संस्थिताः ।
भिन्नशाला च सा प्रोक्ता मनुजानां शुभप्रदा ॥
दिग्विदिक्ष्वेकयोनिस्था पर्यस्तेन तथैव च ।
ज्ञेया चतुश्शालेति शिल्पशास्त्रनिदर्शिभिः ॥ (VIII, 1-3).

Śālās in the Purāṇas like Matsya (Ch. CCLVI, V. 35) and Skanda, (Vaiṣṇava-Khaṇḍa II Ch. XXV, vv. 3, 26) also favour this conclu-

sion. I am, therefore, of opinion that these Śālā structures in the shape of storeyed mansions are a later phases of development, their prototypes being Maṇḍapas—the pavilions for piety, alms, rest, sermons, education, amusement (cf. dancing halls and theatre etc.) and so on. They, therefore, in their later phase of development, took the Gopura-super-structure, the most common feature of the South Indian temples. Works like Mānasāra and Kāmikāgama—representative compendiums of South Indian architecture, must mirror this phase of development. Śālā as a hall or pavilion architecture is corroborated by a number of inscriptions (vide Ency. Hindu Arch. page 487-489) wherein the word Śālā has been used for halls or pavilions like Nāṭyaśālā, Bhakta-śālā, Japaśālā, Dāna-śālā, Yajña-śālā, and Virūpākṣa-śālā (temple). This is one way in which we can explain this character of the Śālā architecture quite divergent from that of the North Indian works like Viśvakarmīya Śilpa, the Purāṇas and the S.S., the most representative works of this school.

The most distinctive feature of the residences of men, the Śālā-houses as developed in the Samarāṅgaṇa, is their courts as opposed to the storeys, the latter commonly associated with Prāsādas, Vimānas and Harmyas which are lofty super-structures.

Meaning and classification of Śālā-houses.

It may be noted here, that though there are as many as ten classifications of the Śālā buildings—from Ekaśālas to Daśaśālas, the text takes up the fourth classification, namely the Catuśśālas both for its definition and classification. This may be because the Catuśśāla houses are often mentioned in literature and this is the most characteristic type of ancient Indian buildings as the bulk of the middle class people used to live in this type of śālā-house.

As regards the definition of these śālā-houses, the text defines Catuśśāla, Triśāla, Dviśāla and Ekaśāla in the 18th Chapter, entitled "Nagarādisañjña" (verses 18-19). That is, a Catuśśāla occupies the four sides of a quadrangle, which is an open space in the centre, the Aṅgaṇa, the Triśāla the three sides, while Dviśāla the two sides and Ekaśāla only one side. These are the principal types, the different combinations of which, give as many as ten broad classifications as we will presently see.

In the Catuśśāla buildings, there were four rooms arranged on the four sides of a quadrangle which was the open space in the centre. Śālā, as we have seen, is a long structure of one span only. I have remarked that this class of śālā house was most common. Sir John

Marshall's account of the ancient city of Sirkap corroborates this: "The city of Sirkap (in the ruins of Taxila) shows several large blocks of dwellings, separated one from the other by narrow side streets. Although the plans of these houses exhibited considerable variety, they were all based on the same principles. The unit of their design is the open quadrangle surrounded by chambers (Catuśśāla) and this unit is repeated two, three, four or more times, according to the amount of accommodation, required by the occupants (A guide to Taxila pages 70-1).

This leads us to the surmise that these buildings were planned under a systematic code of town-planning and presented a facade both symmetrical and pleasant-looking. "The Triśāla and the Dviśāla can be so adjusted as to accommodate an open space in their front along the road which can be laid out as a flower garden. Thus if all the houses on one or both sides of street recede in the middle as a Triśālā or a Dviśālā contemplates, we get gardens by the roadside. We have no definite materials at hand to inter that such gardens existed in ancient India. Certainly there were open spaces; and the branching blocks of the buildings abutting on the streets relieve the monotony of a wall-like front of the thick-set structures or of the long rows of gardens that otherwise would have been the result (T. P. In Ancient India page 250).

Now coming to the classification proper, it has already been pointed out that the śālā-buildings admit of ten broad classifications in the S.S., (vide Ch. 19, 21, 22, 23, 25). Kāmikāgama (already referred) is right when it says that they can be classified into any number (Yāvadiṣṭam Pragṛhyatām). The S.S. however, restricts it to only ten, for the simple reason that the people of divergent means and needs, from an humble dweller to his honoured and fortunate counter-part, can all be accommodated in them. These ten broad divisions are :—

Ekaśāla	Saṭśāla
Dviśāla	Saptaśāla
Triśāla	Aṣṭaśāla
Catuśśāla	Navaśāla
Pañcaśāla	Daśaśāla,

It has also been pointed out that among these only the first four are the principal types and the others are only different combinations of them. They are tabulated below to present at a glance their combinations.

Combinations.

Pañcaśāla : 1. Dviśāla and Triśāla.
2. Catuśśāla and Ekaśāla.

	Combinations
Saṭśāla :	1. Dviśāla, Ekaśāla and Triśāla.
	2. Triśāla and Triśāla.
	3. Dviśāla and Catuśśāla.
Saptaśāla :	1. Two Triśālas and one Ekaśāla.
	2. One Ekaśāla, one Dviśāla and one catuśśālā.
	3. Triśāla and Catuśśāla
Aṣṭaśāla :	1. Inner Catuśśāla and outer Catuśśāla.
	2. Two Triśālas and one Dviśāla.
Navaśāla :	1. Two identical Catuśśālas and one Ekaśāla.
	2. Two dissimilar Catuśśālas and one Ekaśāla.
	3. Triśāla, Triśāla and Triśāla.
Daśśāla :	1. Two identical Catuśśālas and one Dviśāla.
	2. Three identical triśālas and one Ekaśāla.
	3. Two identical Triśālas and one Catuśśāla.

The Varieties.

This is only a broad indication of the classification. All these buildings of one to ten śālās can be further divided into their principal varieties together with their innumerable sub-varieties and their tabulation is given in one of the appendices. This will give at a glance the different varieties of the different śālā-houses.

It may be remarked here that the principal criterion of these sub-varieties numbering as many as fourteen lacs (vide Appendix, Tabulation of Śālā varieties) is the application of Mūṣā or Bhadrā. Every śālā-house (including the Triśāla also, where though the principal criterion of its classification is the absence of one śāla on one or the other direction, the Mūṣā application makes it yield so many sub-varieties) right from Catuśśālas to Daśa-śālas have *Bhadrās*, as many as eight to twenty—the Catuśśālas can have from one to eight, while the Daśa-śālās from one to twenty and hence these *Bhadrās* varieties come to this incredible number.

Now the question is: what this *Bhadrā* is ? The S.S. (19) calls it Mūṣā also :

Mūṣā originally denoted a crucible for melting gold or silver. It was cylindrical in shape with a round bottom and open at the other end. The hole in the wall to admit light and air resembling exactly the shape of such a crucible or *Mūṣa*, used to be laid horizontally into the wall. From the original connotation of an apperture in the wall to admit light and air was developed the meaning of *Mūṣa*, as a fulfledged ventilator or window. It is this meaning which applies in S. S. The Vāstu-sāra (verse 67) also takes the same meaning.

Other criteria of these sub-varieties are the different and manifold applications of the *Alinda, Vīthī Prāgrīva Niryūhaka* and *Gavākṣaka* which if worked out would result into a number beyond calculation (cf. S. S. 19, 38-40). Thus these varieties and sub-varieties may not be taken very seriously. The principal varieties will be noticed in a subsequent chapter (—vide House Plans and Building byelaws).

A Critical Estimate.

All these varieties and sub-varieties as we have seen, come to an incredible total of about fourteen lacs. A natural querry is: Is it actually possible to have such a vast number of architectural designs translated into practical operations? I have already pointed out that the science of architecture is both a science and an art. As a science it is a normative science which prescribes norms, the standards to be worked out in the art. These norms, however, must have some fundamental basis, the starting point from which we can work out. This is what the ancient masters have formulated in what is technically called the Prastāra—the ramifications of the Guru and Laghu viz. Alinda-prastāra, Bhadrā-prastāra, Mūṣā-prastāra and so on.

Let us take a typical Prastāra of Catuśśāla houses. We have already noticed the different arrangements of the Mūṣās or Bhadrās in one or several or all directions of the house as the distinguishing criterion among these and Alinda—all these denote porticos or corridors of a house placed in one or many directions of the house. These in relation to a Catuśśāla house are eight-fold. In the Prastāra, the first resultants or the former ones are deemed auspicious and the latter ones inauspicious. The resultant varieties of an auspicious and inauspicious nature take corresponding names literally—good or bad. How to know it? It can be ascertained from the Prastāra.

In the first place, place all the eight Gurus and then place Laghu under the first guru and fill up the remaining places in the second line as per those in the first. Go on doing it till all become Laghu, but mind that the first beginning should be made with guru in all the cases (S. S. 19. 35. 6). The attached chart in the Appendix will illustrate it more clearly.

The purpose of this Prastāra is to find out the place of the Mūṣā in the house. Mūṣā for the matter of that any other component part (besides Śālā) is to be placed in Laghu and the Śālā is to be placed in Guru. The Mūṣā varieties alone amount to as many as two hundred fifty six (already tabulated). Similar ramifications can be obtained from Alinda-Prastāra, Vīthī-Prastāra and from many others, resulting in number beyond calculation. Thus this is all

mathematical gymnastic. Its practical value is only to avoid wrong orientation and misplacement of any of the component parts in the building of the śālā in order to provide the maximum of comfort and the fullest of space together with conformity to the mystic ideas of the doctrine of Orientation.

The second point to which I would like to draw attention here, is, the names of these varieties. Most of these read like synonyms of the principal variety (—vide Dviśālas). Now what is its significance? The architecture as I had an occasion to point out at several places, has evolved and assimilated the regional and religious features and the consequent adaptation of the nomenclature of different classes of buildings was done either in consonance with the particular bias to the adorable deities or the particular surroundings. But both these things we do not find here in the naming of these buildings. What then the basis is? I, therefore, may suggest that these names are in accordance with the inauspicious or auspicious nature of the buildings. Therefore, all the varieties of Divśālas except the first eleven are naturally to be called by some terrible aspect of nature or deity. The S. S. itself says it at many places (vide S. S. 23. 2 3, 27). There are certain exceptions too. The names of the principal Catuśśāla-houses like Sarvatobhadra, Vardhamāna and Nandyāvarta, etc. are of traditional nature and also auspicious in character.

CHAPTER V

PLANNING OF ŚĀLĀS

THE HOUSE PLANS AND BUILDING BYELAWS

House Plans.

House plans and building byelaws are inter-connected. House building in ancient India was never taken in a haphazard fashion. What we call the building byelaws in modern times by which the modern house plans of the individual citizens are scrutinized by the city corporations, were in ancient times a code of sanctified religious character, the violation of which was beyond contemplation. The horror of death, destruction, disease and other misfortunes was always shadowing them. This subject of building byelaws will be dealt with in the latter part of this chapter.

The subject of house-plans can not be treated in isolation from the essential qualities of a building. Character, stability and beauty are the essential qualities of a building. A house-plan must be true to its purpose. It must conform, not only to the needs for which it is being planned out, but its very appearance should indicate its purpose. A devotional building, a temple, a shrine, a mosque or a cathedral, must from its very appearance look like so. Similarly, the military, memorial, civil and domestic buildings also should give the same impression. In ancient India, as we have already seen, the buildings were mainly residential or military. The civil buildings, secretariats, banks, institutions, industrial buildings, railway stations and picture palaces, etc. and a host of others, so essential in the modern set-up were not so in ancient times when life was not so complex. Hence the function of architecture was to infuse and develop the character, appropriate to a particular building. Stability of the building must have been the prime consideration. The pride of a house lasts for generation after generation. As regards beauty, this is the soul of architecture as an art. Unless a piece of architecture pleases, it is no architecture. This pleasure may be derived as a result of size, form, colour and proportion between the various components. Proportion, what the ancients termed it, the Chandas, (44. 3) the rhythm is one of the most important attributes in architecture. This leads us to cent percent exactitude in the measurements of any construction, be it a Vedic altar, a temple edifice, an image

of a god, or a residential house. Conformity to proportionate measurements was so much adhered to, in ancient India that sometimes it was over done (particularly in Iconography). To them Pramāṇa was the life-breath of an art. The S. S. rightly says:—

(i) प्रमाणे स्थापिता देवाः पूजार्हाश्च भवन्ति हि । 40. 13½
(ii) हेतुः समस्तवास्तूनामाधारः सर्वकर्मणाम् ।
मानोन्मानविभागादिनिर्णयैकनिबन्धनम् ॥
परिध्युदयविस्तारदैर्घ्याणां स्युरमी यतः ।
ज्येष्ठमध्याधमा भेदा यं च ज्ञात्वा न मुह्यति ॥
इदानीं तस्य हस्तस्य सम्यङ् निश्चयसंयुतम् ।
कथ्यते त्रिविधस्यापि लक्षणं शास्त्रदर्शितम् ॥ 9. 1-3

It may be noted that dimensions of length, and breadth as well as the height of the Śālā-houses varied according to varied social status in Indian society of the house-owner. In the 19th Ch. the S. S. (cf. 15 to 25 verses) gives various alternative measurements in relation to the different structures of the different occupants having different positions in the social hierarchy. This has been the time-honoured tradition and practically all the texts on the Śilpa-Śāstra have adhered to this rule.

The Catuśśāla house of the Varṇīs—Brāhmaṇas etc. should have the measurement of 32 hastas, that of the commander and the priest 64 hastas, and that of the kings however, should take 108 hastas. The text shows that like Temple Architecture, in Domestic Architecture too, the buildings of Brāhmaṇas are square or nearly square and, if rectangular, the length exceeds by 1/10th only. In the buildings of Kṣatriyas the excess is 1/8th; in those of Vaiśyas and Śūdras 1/6th and 1/4th respectively (ibid 19. 18–19). It shows that lower the caste the further remote from the perfection of the square are the buildings which are suitable for its members.

We know that the house has two principal parts—the interior and the exterior one. All these relate to the interior. All that is not covered by the interior śālās is to be deemed as exterior Alinda etc. Śālā and Alinda are two principal components of house-architecture. The S. S. (16.22) says:

शालाव्यासार्धतोऽलिन्दः सर्वषामपि वेश्मनाम् ॥

'Gṛha-dravya-pramāṇa' (the 28th Ch.) is rich with similar prescriptions of other parts of the subsequent chapters (Door, Pillar etc.), only a brief notice of them in the evolution of the House-Plans of the S. S. is called for here.

Apart from the Śālā, the Alinda, the Bhadras or Mūṣas, the Door, along with its parts (the śākhās, the frames, the udumbara, the lintel) the Pillar with its manifold mouldings, the other subjects of a house plan is the determination of its *Tala*, the floor. The text (S. S. 28.16) says, "Add four hastas in the sixteenth part of the Vistāra, the height of the *Tala* would be obtained from all the varieties of the houses". Next (ibid 17) the height of a śālā-house of a superior, middle and inferior quality is 7, 6 and 5 hastas (i. e. 10½, 9 and 7½ ft.) respectively. Further next (ibid 18) the Vistāra of a Sālā should be 17, 10 and 5 hastas (25½, 15, 7½ ft.) respectively. Again the *Talanyāsa* should conform to the Bāhulya of the Udumbara, the lintel, and similar is guidance for the beam, the Paṭṭa, the Alinda-parigraha.

The other important parts of the house are the *Niryūha* (pinnacle) to be decorated with Vedikā-jāla-rūpa etc. and the Aṅgaṇa-vāpikā to be laid with cover and the channel for water in the shape of a crocodile. Again a very important subject of the house-plans is the different varieties of the roofing. *Bhūta, Tilaka, Maṇḍala* and *Kumuda* (S. S. 28.49) are the four classes of roofs. Their mutual distinguishing criterion is the relative height—the last one being the highest.

All these relate to the external features of a house-plan. The most important inner feature of a house plan is the grouping. It should be so accomplished as to make a house a real home. It is a synthesis of a house. A verandah, a drawing room, a bedroom, a kitchen, a dining room, a store, place for worship, a bath, a staircase, a guest room, a nursery or children's room, a latrine and a garage—all these so laid in a house-plan as ensure not only the maximum of comfort but also freedom and privacy, the key-note of any house-planning, be it ancient or modern.

Other considerations prevailing in the mind of a house planner are the aspect of a house, i.e. the arrangement of the doors [so much emphasised in the prescription of the S. S. (vide the next chapter, the Door)], its prospect, (cf. the character already noticed) roominess, furniture requirements, sanitation, flexibility, circulation and practical coveniences. If in a house, the dining room is not close to the kitchen, it is simply a curse both for the maids of the house and its inmates. Similarly, if the minimum accomdation of a room does not conform to its furniture requirements, it is a tragedy for all times to come.

It is said that Indian architecture is suitable only to religious buildings. This may be true to the building canons as developed in the ancient Indian Manuals, but the Śālā houses of the S. S. are really the harbinger of the popular arhitecture.

With this general introduction to the House-plans, as the S.S. envisages, let us take some of the principal varieties of the Śālā-houses and illustrate them in sketches. But before doing so, let us first see what the standard varieties, which when transformed into brick and mortar, may serve over model houses.

The followings are the model varieties:—

Eakśālas.

1. Dhruva	6. Manorama	12. Ramya
2. Dhanya	7. Sumukha	13. Śrīdhara
3. Jaya	8. Dhanada	14. Mudita
4. Nanda	9. Vipula	15. Vardhamāna and
5. Kānta	10. Vijaya	16. Samṛddha.

Some of these are illustrated in one of the appendices. It may be noted here that the special feature of these houses is the Alinda-yojanā which is to be done—(Savyāvarta) from the entrance of the house.

Dviśālas.

1. Vasudhara	7. Strīda	*N.B.* The special features of these are Mūṣās, Alindas and Prāgrīvakas. (ibid-sketches).
2. Siddhārthaka	8. Śānta	
3. Kalyāṇaka	9. Niṣkalaṅka	
4. Śāśvata	10. Dhanādhīśa and	
5. Śiva	11. Kuberaka	
6. Kāmaprada		

N. B. Other varieties of the different classes of Śālā-houses like Triśālas and Catuśśālas etc. are left out to be worked out in detail in the subsequent volume of this study—"Architecture and Sculpture of the Samarāṅgaṇa". Their nomenclature however, may be interesting and hence some of them are laid down here:—

Triśāla—Hiraṇyanābha.

Catuśśāla—Rucaka, Vardhamāna, Nandyāvarta, etc etc.

Pañcaśāla—Hemakūṭa, etc.

Saṭśāla—Paṅkajāṅkura etc.

Saptaśāla—Śrīpada, Śrīniketana etc,

N. B. Hundreds of other names may be seen in the appendix.

Building Byelaws.

These building byelaws concern mostly the doors, the storeys, the orientation, the proportion of measurements, layouts, the site-plans,

the decorations, the auspicious dates, etc. etc. and they are scattered throughout the book. Hence they need be collected at one place to evolve a code of byelaws—a systematic presentation of the ancient canons in a modern garb.

The ancients had their own way of presenting things—every life-manifestation had a religious sanctity behind it and naturally, therefore, all these rules of living, drinking, bathing, eating, sleeping, mode of living—building houses, conducting any business, secular or religious, were formulated like religious sacraments. It was an article of faith rather than a belief which prompted them to formulate such a code of life.

Time.

(1) One should start building a house only in the following months of the Hindu Calendar.

1. Vaiśākha
2. Śrāvaṇa
3. Mārgaśīrṣa
4. Pauṣa
5. Fālguṇa.

(for details vide the S. S. 26).

(2) One should choose only the following dates of these months.

1. Dvitīyā
2. Pañcamī
3. Saptamī
4. Navamī
5. Ekādaśī
6. Trayodaśī.

N. B. Also one should consult ones's priest and astrologer for the other details regarding the Āya, Vyaya, Aṁśaka, Tārā, Nakṣatra, etc. etc. for the auspicious moments on a particular date (cf. the S. S. 26).

(3) Build houses on the proper Padas:—

(i) The 40 Secular plots for the Secular building, profession-wise (the S. S. 38).

(ii) Caste wise Padas (the S. S. 39):—

Sl. No.	*Caste*	*Pada*	*Dvāra*
1.	Brāhmaṇa	Bhallāṭa, Dhanada, Caraka or Pṛthivīdhara.	Mahendra
2.	Kṣatriya	Māhendra, Ārka, Sātya, Āryaka,	Gṛhakṣata
3.	Vaiśya	Yāmya, Vaivasvata, Gāndharva or Gṛhakṣata.	Puṣpadanta.
4.	Śūdra	Vāruṇa, Pauṣpadanta, Maitra or Asura.	Bhallāṭa.

(4) Caste-wise placing of house doors and Vāstu doors in the following manner (ibid):—

	Caste	*Bhavanadvāra*	*Facing*	*Vāstudvāra*	*Facing*
1.	Brāhmaṇa		to South		to East
2.	Kṣatriya	,,	" West	,,	,, South
3.	Vaiśya	,,	" North	,,	" West
4.	Śūdra	,,	" East	,,	" North

There are some of the illustrations of the building byelaws from the point of religious consideration. A large number of other illustrations of the character are scattered throughout the text and most of them have been taken into account in their respective chapters There is no dearth of the secular code of building byelaws, a few illustrations will serve this point.

Secular.

1. The following number of storeys is prescribed castewise:—

Śūdras not more than 3 and half a storey.

Vaiśyas not more than five and half a storey.

Kṣatriya not more than six and half a storey.

Brāhmaṇa not more than seven and half a storey.

Kings of various religious merits—not more than eight and half a storey.

2. Placing of the door—Never place a door in the middle of the house (S. S. 48-58). No two doors should be exactly opposite to each other.

3. Similarly the doors in the upper storeys must conform to the doors below (S. S. 41.44).

4. A residential house must have Śālā and Alinda both (S. S. 48.18).

5. Mouldings like Siṁhakarṇa. Kapota, etc. etc. (S. S. 48.106) together with the paintings (see the Aprayojyas—vide S. S. 34), are not to be undertaken.

6. Rules regarding frontage i. e. Mārga-vedha—The Vedha on the way, cross road or any road, or any other building, door, tree, etc. etc. is to be avoided.

7. Byelanes should not be on both the sides.

All these and several others are scattered in the text. These few are only by way of illustration.

CHAPTER VI

THE CONSTRUCTION OF THE ŚĀLĀS

The Masonry & the Material.

In its 41st. Chapter entitled "Caya-vidhi" the technique of masonry—a most scientific code of brick laying is propounded.

I think the proper word was Ceya and not Caya. Ceya is used in 41.4. (चेयस्य गुणाः). Caya seems to be either an alternative form or scribal error for Ceya. In Hindi it is called 'Cejā', which word can be derived only from Ceya and not Caya. Cejā is brick-laying i. e. the Raddā.

The following twenty good qualities of the masonry are enumerated:—

1. Suvibhakta
2. Sama
3. Cāru
4. Caturaśra
5. Asambhrānta
6. Asandigdha
7. Avināśī
8. Anyavarjita
9. Anuttama
10. Anudvṛtta
11. Akubja
12. Apihita
13. Samānakhaṇḍa
14. Ṛjvanta
15. Antaraṅga
16. Supārśva
17. Sandhi-suśliṣṭa
18. Supratiṣṭha
19. Susandhi and
20. Ajihma.

—the presence or absence of which make the masonry good or bad accordingly. The purport of all these qualities is that the masonry work should be in the perfectest order, beauty, measurements and strength (cf. Suvibhakta, Sama, Cāru, Avināśī etc. etc.)

It may be noted that the S. S. has the singular credit of giving such a large number of good qualities of Masonry. Nowhere in any extant Śilpa-work, both ancient and modern, may be found this mention of good qualities of the masonry. They represent the highest water-mark in the masonry work, the real ability of a mason.

If these attributes in masonry are not well brought out, they result in an equal number of defects. Our text (41-4) says :—

"If these qualities of masonry are not adhered to, they result in the defects of the same number."

These defects in the masonry in their turn bring about miseries, misfortunes, incalculable calamities, e. g., if the southern wall goes

out of its direction, it is indicative of some physical diseases to break up and it may also indicate capital punishment to the house-owner. Similarly, a western wall going off its directions while the masonry is going on, brings loss of wealth and fear from dacoits, and so on.

Not only is a disproportionate masonry work insuspicious, but a weak one also. It brings bad results. The wrong mouldings in it brings similar evil consequences. A similar fate befalls on one if the wall falls down or breaks down on account of defective brick-laying.

Defective masonry has got some technical denominations and they are a bit more interesting as they give us an indication as to how advanced the masonry work in those times was :—

1. Mallikākṛti (Karṇikāsamasthāna) i.e., Viśāla while operating upon all the vāhus i.e.—the corners.

2. Brāhma. i.e. too thin a masonry
3. Tanumadhya. i.e. haphazard
4. Nirṇata. i.e. wrong on the corners
5. Kūrmonnata. i.e. raised in the middle

These are all defective constructions and must be avoided, otherwise evil consequences may follow. Hence the S. S. rightly advises —Vide 41.21-26 see V. L.

So far only general guidance in the art of brick-laying and wall making is given. Now an interesting code of instructions is offered to the masons in the handling of the Sūtra and the bricks in order to reach the desired end of good and proportionate masonry.

The following verses (41.27-32) simply portray the picture of the brick work indicative of the most scientific and advanced masonry of the day in its different stages from plinth to the high wall.

भूरि नाच्छादनं दद्यान्न भिन्द्यात् तत्र चेष्टकाः।
विषमस्थाः कुठारेणच्छित्वा ताः कल्पयेद् समाः॥
यथा न च स्पृशेत् सूत्रं विचिन्वीत तथा बुधः।
कुड्ये च सादिमध्यान्ते दृष्टिमेकां निपातयेत्॥
यदा सर्वपरिक्रान्तं तलं चोद्घाटितं भवेत्।
तदा नैकत्र कुर्वीत पर्यायेण विचक्षणः॥
उद्घाटनं स्तराणां तु यदीच्छेत् सिद्धिमात्मनः।
तत्र तत्र चयं कुर्याद् यदि संबिद्धकं हितम्॥
दुर्वहं हि भवेत् तेन तस्मात् तत् परिवर्जयेत्।
उपरिष्टात् समं पार्श्वे भुजं कुर्याद् विचक्षणः॥
समन्ताद् रुचकच्छिन्नश्चयो भित्तिषु पूजितः।
तस्मात् प्रयत्नः कर्तव्यश्चयकर्मणि नित्यशः॥

Let there be neither too much of Ācchādana, the mortar i. e. (gārā) nor the bricks be laid loose or remain open. Those uneven should be made even by cutting them and thus levelling them by the Kuṭhāra, the axe and, the Basūlī. The mansonry should be such as when examined through the Avalambaka (i.e. Sāhula, these days) one of the eightfold Sūtras (the full list of the Sūtrāṣṭaka being dṛṣṭi, kara, mauñja, kārpāsa, avalambaka, kāṣṭhasṛṣṭi and vilekhya) it should be found correct. After some progress is obtained it should be examined in all its levels beginning, middle and the extremity by the Dṛṣṭi-sūtra—'Kuḍye ca sādimadhyānte dṛṣṭimekām nipātayet" Now after all the four walls have reached an appreciable level, say man's shoulder, the masonry on all sides should be abandoned and they should be taken up, one by one, otherwise the masonry may be very difficult—"Durvaham hi bhavet." We know: higher the masonry, larger its paraphernalia—the Pāḍha etc. In order that all the walls are set in together all round leaving the D¯ḍhā—cf. Rucakacchinnaḥ—which is an essential code."

Material the wood.

There is only one chapter regarding the material, namely *The Vanapraveśādhyāya,* the 16th. In it are laid down the rules for bringing wood from the forest at an auspicious time from auspicious trees in an auspicius manner together with other allied matters of examination of trees, their selection of trees, their selection with certain rites and devices, the mode of cutting and suitability of particular trees to particular castes and for specific operations.

Practically all important ancient treatises of architecture have treated this topic of bringing timber from the forest for the use of house construction. This they call 'collection of wood' Dāru-āharaṇa vide Viśvakarma-Prakāśa XXIX.; Matsya-Purāṇa 257; Bṛhat Samhitā 59).

For Entry into the forest for collection of the wood for construction of the building. The first thing to be considered is the auspicious date on which the operation of this kind is to be made. For this an auspicious constellation of stars is recommended.

Having entered into the forest, the trees should be offered food and drink and the cutter is to keep fast. Thus, after the tree has been offered the draught and food and a night has passed, the cutter having laid down his are examines the trees from the point of their age and those which are Bāla or Vṛddha i. e. young and old should be abandoned and the criteria of examination are (a) colour (b) taste and (c) bark, and as with advance in age people become weak, powerless;

and impotent, similarly the trees become shorn of lives with signs of decay in colour and oil-juice as well as in the bark. According to the text, the Śāla tree's age is 300 years and it is fit only after it has crossed the age of 66.

The following kinds of trees are deemed unfit for the collection of wood or timber for the required purposes:—

1. Grown on the cemetries of the town, the roads of the village, on the bank of a tank, in the vicinity of a shrine or temple or grown on soils not fit for the selection of any planning (vide T. P.).

2. Decayed, dried up, having holes, sharp-barked, crooked, burnt up, shorn of branches, presided over by spirits, damaged by the fall of lightening, inhabited by bees, snakes, or by meat-eating birds, covered by the spiders' nests (Lūtā-tantu) scratched by forest beasts or wounded by elephants.

3. Those placed as land-marks on the ways and having a very thick trunk.

4. Giving flowers and fruits out of season and those diseased.

5. Thorny trees, those giving delicious fruits, milky trees, fragrant ones, trees like Karṇikāra, Dhava, Plakṣa, Kapittha, Viṣamacchada, Śirīṣa, Udumbara, Aśvattha, Śelu, Nyagrodha, Campaka, Nimba, Āmra, Kovidāra, Akṣa, etc.

The general criterion in the selection of fit trees is that only those trees should be selected which have the potentiality for bearing the load of the structures and the superstructures of the buildings as most of the wooden architecture in those days was related to pillars, beams and lintels. Door frames and roofing too, were done by wood (cf. Saḍdāruka—so common in the Śālā houses). The following common trees on the basis of this criterion are recommended:—

1. Khadira
2. Bījaka
3. Śālā
4. Madhūka
5. Śāka
6. Śiṁśipā
7. Sarja
8. Arjuna
9. Añjana
10. Aśoka
11. Kedāra
12. Rohiṇī
13. Vikaṅkata
14. Deva-dāru
15. Śrīparṇī.

Now after these two preliminaries, i. e. starting in an auspicious constellation of stars and the examination of stars and the examination of the trees for selection and collection thereof, the actual operation of cutting them down should be attended to with Bali

offerings with Svastika-pāṭha in the early hours of the morning. Particular attention to be bestowed upon this operation is that during the cutting operation if the following are observed, the tree should be abandoned:—

1. The coming out of blood.
2. Shaking or sounds made by the trees.
3. Fall of curd, honey, milk or butter.

On the other hand, if the following are observed, the tree should be deemed fit:—

1. Black liquid spouts from the tree.
2. Falls at a distance after the roots are cut.
3. Makes excessive sound.
4. Produces excessive wind.
5. Falls in the East or in the North.

If however, it falls either in the South or in the West, the Śāntika having performed, it should be abandoned and deemed unfit for employment. Similary, several other procedures both ritualistic and non-ritualistic are prescribed and the import of all this is to select the best wood to secure the best result. This only indicates how meticulous our forefathers were even in matters mundane. They could never have suffered the slightest departure from the ideal.

A very interesting procedure to find out the maṇḍala, if the tree is bored by insects is given in the text. While cutting the tree, the colour of the tree should be observed—these are called the Maṇḍalas. Maṇḍalas are animal rings in the pith of the trees and they are tabulated hereunder:—

Circle	*Animal*
1. Mañjiṣṭhābha	Bheka
2. Kapilābha	Rat
3. Pītābhāsa (Yellowish)	Godhā
4. Dīrgha-sitāyata (whitish)	Serpent
5. Guḍacchāya	Bees
6. Aruṇa	Kṛkalāsa
7. Kapotābha	Gṛhagodhā
8. Ghṛta-maṇḍābha	Gaudheya
9. Rasāñjanābha	Water
10. Śastrābha	,,
11. Kamalotpalābha	,,
12. Dhautāsi-yaṣṭivarṇa	,,

CHAPTER VII

THE PRINCIPAL COMPONENTS

(The Door)

The S. S. is very exhaustive on Door; as it has devoted as many as the following six chapters to it; some of which mainly and others partially deal with this important topic of architecture:—28, 34, 39, 43, 48, and 53.

The first point to note is the different limbs of the door space. The door called Dvāra, Praveśana, Nirgamana, etc. is constituted of the Udumbara—the lintel under which the door is placed, this lintel and the space between the two walls for the entrance is called *Dehalī*, the other name being *Kapāṭāśraya*, and the other components being Kapāṭa also called *Dvārapakṣa*, *Kapāṭapuṭa*, *Pakṣa*, *Pidhāna*, *Varaṇa*, *Dvārasamvaraṇa* and this is two-fold which is called Kapāṭayugala. The *Kalikā*, the door-bolt also called *Argalā*, is for the purpose of bolting them together. It is called Argalāsūcī. If it is big in size, it is called Parigha in the great gates of the town and their Gopuras. The other name is Phaliha, warder of the elephant.

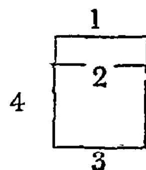
The other elements of the door, though ornamental, are *Phalaka*—S.S. 18.34, *Jāla* (a kind of window) *Toraṇa* and *Simhakarṇa* arches and mouldings The following parts constitute the door according to the text:

1. Four-fold—Pedyāpiṇḍa
2. Udumbara
3. Dvāra-Śākhā
4. Rūpa-Śākhā
5. Khalva-Śākhā
6. Bāhya-maṇḍala
7. Bhāra-Śākhā.

The Udumbara is lintel. The Śākhās are the side frames—the varieties according to the position on the sides up and down are what the S. S. terms them as Dvāra-Śākhās, the sides frames etc.

Regarding these Śākhās, the text mentions the following technical names after the look and the virtue thereof :

1. Devī
2. Nandinī
3. Sundarī
4. Priyānanā
5. Bhadrā



N B.—The five frames can be accommodated like the above diagram.

More than five of these Śākhās i.e. door frames are not allowed in the composition of a door to be placed in a human dwelling (S. S. 28.15).

The doors are both main gates and the side ones. They are placed on the different cardinal points. Their different varieties are the result of the variations in their positions. As town entrances were fortified by the enclosures of moats, ramparts and walls, they were called Gopuras (cf. S.S. 18.52), the main gates and the side doors are called Pakṣadvāras (cf. S.S. 18.52).

These principal topics, namely the dimensions of the doors, their position and the Vedha together with decoration on the doors are discussed in the following paragraphs.

Regarding the dimensions, the common rule is that the height of the door should be twice the breadth. But this, I believe, is too low a height. A height twice the width must make the door too low for daily use unless, of course, the width itself is of a large dimension, say not less than four feet. Therefore, the authoritative texts like Viśvakarma-prakāśa and *Bṛhat-saṁhitā* prescribe for doors of domestic house, a height equal to three times the width. Perhaps a corrupt tradition has crept into the texts, hence practically all the texts prescribe a height twice the width in case of temple doors. The correct tradition however, is restored by that celebrated commentator Bhaṭṭotpala, who accepts the reading त्रिगुणम् in place of द्विगुणम्.

The S.S. however, has improved the traditon by avoiding this common rule of the ancient masters and has given some formulas as laid down in the 28th Chapter (I–7).

द्वारस्य गृहविस्तारैर्हस्ततुल्याङ्गुलैर्भवेत् ।
उच्छ्रायः सप्तभिर्युक्तैर्विस्तृतिस्तु तदर्धतः ॥
प्रकल्पयेद् गृहद्वारं क्रमेणैव कनीयसा (म्) ।
त्रैराशिकेन मध्यानां द्वादशांशं परित्यजेत् ॥
इत्युच्छ्रितिस्तदर्धेन सर्वेषामपि विस्तरः ।
उच्छ्रायमुत्तमानां तु कुर्यादष्टांशवर्जितम् ॥
विस्ताराङ्गुलसंयु (क्तां? क्तं) कुर्यादतिकनीयसाम् ।
चतुःषष्टिगृहद्वारमुदयेनार्धविस्तृतम् ॥
विस्तारहस्ततुल्यानि षष्ट्या पञ्चाशताथवा ।
संयुतान्यङ्गुलानि स्यादुच्छ्रायोऽर्धेन विस्तृतिः ॥
गृहोत्सेधेन वा त्र्यंशहीनेन स्यात् समुच्छ्रितिः ।
तदर्धेन तु विस्तारो द्वारस्येत्यपरो विधिः ॥

Various alternative measurements are also given in the text. The verse no. 7 (cf. 39th Chapter) says :

Let the height of the house be distributed in the equal parts, the two parts will give the height of the door. Its width however, should be done half of its height. This is another alternative measurement of the door. Samarāṅgaṇa, keeping in view the higher and larger buildings together with the middle size and lower size buildings suggests three alternative dimensions of the doors, as the doors are of large size, middle size and low size.

Again in the chapter entitled 'Dvāra-pīṭha-bhittimānādika'. the 24th, the same thesis of the height of the door as more than the double of the width is corroborated

In the 24th chapter a four-fold special variety of auspicious houses (already noticed in a previous chapter) is described wherein the placing of the doors in all directions has been recommended. The above regulation about the position of the door in four directions is supported by the following quotation from 39th Chapter in a more tangible manner:—

पूर्वद्वारं तु माहेन्द्रं प्रशस्तं सर्वकामदम् ।
गृहक्षतं तु विहितं दक्षिणेन शुभावहम् ॥
गन्धर्वमथवा तत्र कर्तव्यं श्रेयसे (त?स) दा ।
पश्चिमेन प्रशस्तं स्यात् पुष्पदन्तं जयावहम् ॥
भल्लाटमुत्तरे द्वारं प्रशस्तं स्याद् गृहेशितुः ॥

This is the general position. Now definite location of the doors caste-wise and house-wise as expounded in this very part has already been noticed of (vide Ch. below—Building Byelaws).

The S.S. (39. 11-17) gives the following four-fold categories of the residences in which the location of the doors is a matter of special importance. They are:—

1. **Utsaṅga**—Where doors of both the house and Vāstu are in one direction.

2. **Hīnabāhu**—While entering into the Vāstu, the house is on the left.

3. **Pūrṇabāhu.** Reverse of the (2) while entering into the Vāstu the house keeps on the right.

4. **Pratyakṣāya.** Vāstudvāra, on the hind parts of the house. The first and third are auspicious and the second and fourth inauspicious and not conducive to happy living.

Another very important rule regarding the location of the door is that the door should never be located in the middle :

मध्ये द्वारं न कर्तव्यं मनुजानां कथञ्चन।
मध्ये द्वारे कृते तत्र कुलनाशः प्रजायते॥

Another direction is that the successive storeys should have their doors located on the doors below (vide Chapters 39 and 48, verses 44-47 and 80 respectively).

Lasty the last four verses of the 39th Chapter "Dvāraguṇadoṣa" the text concludes with the evil consequences attending on the wrong position of the doors.

Now after the composition and the varieties of the doors indicated, their dimensions and positions ascertained, their qualities and defects must also be known.

Qualities.

Regarding the qualities, the text (39. 35-37) says that the door should be well laid (Susthita—square, i. e. its frames), good looking, made of the material specially suited to it, straight (Ṛju) in its direction, neither too small nor too high, its frames should also be neither thin nor crooked and so on. The import of all these qualities is that its material, its proportionate measurements, its finish and get-up, all must be perfect and a product of artistic style. As a matter of fact all these good qualities of a door centre round the absence of defects of the door in relation to its parts, mouldings or position, etc.

Defects.

The information on the defects is exhaustive. The text (vide 48.91 and onwards) enumerates the following list of the defects.

1. Kṛśa
2. Vikṛta
3. Atyucca
4. Karāla
5. Śithila
6. Pṛthu
7. Vakra
8. Viśāla
9. Uttāna
10. Sthūlāgra
11. Hrasvakukṣika
12. Svapāda-calita
13. Hrasva
14. Hīnakarṇa
15. Mukhānata
16. Pārśvaga
17. Sūtramārga-bhraṣṭa.

The import of all these defects is that the perfect joinery position and proportionate measurements, the violation of which results in relation to any of these broad principles of the door construction, and its placing thereof must be meticulously adhered to. The text further says, that a door making noise while being shut up is bad and it is also inauspicious if it shuts up and closes by itself.

After the merits of the door have been mentioned and the defects pointed out, let the doors now be decorated in all their perfection, glory and grandeur.

Decoration of the doors is a very old tradition in India. This tradition is still maintained in all parts of India. A plain door is described as inauspicious and naturally, therefore, manifold objects for decoration are prescribed in the texts. Bṛhat-saṁhitā, Matsya-Purāṇa and practically all the authoritative compendiums of Architecture enjoin decorations. The chief door is especially enjoined by all the authorities to be highly decorated with auspicious designs. The S.S. has very beautifully kept up the tradition and added to the list. But it may be pointed out here that the topic of decoration at present is of a limited purview. Forming the complete picture as it does, of the exposition of the House Architecture in opposition to the Temple architecture, the theme remains incomplete here, because the Temple doors are not taken into account and the material on the topic abounding in the ancient manuals is more related to the decorations on the doors of the devotional places. Samarāṅgaṇa, therefore, in its 34th Chapter the "Aprayojya-prayojya", has itself delimited the scope according to this point of view taken above. The subject of decoration from the architectural point of view is simply vast. Not only the doors, the house walls, the Assembly halls, the caves, and the temples but also the bed-coats, the seats, the conveyances, the pots, the ornaments, umbrellas, flags, and practically all objects are the objects of decoration (S. S. 34.1—2).

Decorations of the doors.

1. Kula-devatā—the image not being more than one hasta of length.

2. Two Pratihārīs, the Sentinels—Well decorated in variegated and ornaments, bearing staff or Vetra, and swords, in their hands, clothed, glowing with youth and beauty, along with lady Pratīhārinīs and placed on both the sides of the door.

3. A dwarfish nurse (Dhātrī) followed by her maid companions the happy jesters (Vidūṣakas).

4. Śaṅkha and Padmanidhi—emitting coins.

5. The Aṣṭamaṅgalā—On the seat of lotus wearing a sacred garland of eight auspicious symbols.

6. Lakṣmī—Lotus-seated and well decorated and being bathed by elephants.

7. Cow with her calf and well ornamented with flower garlands etc.

The Dvāra-Vedha.

The purpose of Vedha is the avoidance of obstruction to light and air and this leads to a very highly developed technique of the orientation of the buildings in ancient India.

These obstructions are known under the technical name of Vedha. The Vedha may belong to any member of vast structural parts of a house or building with the neighbourhood. According to Vāstu-sāra, there are as many as seven kinds of Vedhas—Tala-vedha, Koṇa-vedha, Tālu-vedha, Kapāla-vedha, Stambha-vedha, Tulā-vedha and Dvāra-vedha Here the theme is of the Dvāra-vedha—obstructions of the doors. In case the, vedha happens in the construction of a door, it was believed to bring a calamity to the master of the house, either to himself or to his sons or to his wife or to his wealth and property. Some of these obstructions are a road, a tree, a corner, a wall, a pillar, a water channel, a temple and so on. Almost all the manuals deal with this topic and the list was more and more enlarged and has assumed too great a bulk in the S. S., an enumeration of which is not necessary (see text).

It may, however, be pointed out that prescriptions propounded in the texts can hardly be adhered to, because it is indeed very difficult to avoid these obstructions in crowded cities and towns. Therefore, a little distance from the object of obstruction was recommended for the location of the door. The irreducible measurement fixed is twice the height of the house, so that obstructions may not occur. The rule says, (cf. Matsya-Purāṇa, 255. 14, Agni, page 104. 34, B. S. 53, 76, etc. etc. all the manuals are unanimous on this point): "The distance of twice the height being left (from the door to the Vedha) there occurs no Vedha."

CHAPTER VIII

THE PILLAR AND OTHER MEMBERS

The Pillar

The evidence on Pillar in the S.S. is confined to the 28th Chapter entitled "Gṛhadravya Pramāṇa". The S.S. has described the four kinds of columns; the *Padmaka*, the *Ghaṭa-pallavaka*, the *Kubera* and the *Śrīdhara*. The chief distinguishing features of each of these are that the first two, though resemble in shape, take the different motifs, the former of a lotus and the latter of the leaves and garlands (cf. "the pot and foliage" motif of Indian columns). And but for the shape, the other two take the model of the Padmaka. This designation of the pillars does not correspond to those of the works like Mānasāra and others for the simple reason that basically these pillars are not temple pillars, and therefore, in house architecture, their innovation is fully justified. The five-fold division of Mānasāra pillars into Brahma-kānta, Viṣṇu-kānta, Rudra-kānta, Śivakānta and Skandakānta is based on the general shapes of the columns. With respect to dimensions and ornaments, the five orders are called Citrakarṇa, Padmakānta, Citra-Skambha, Pālika-Skambha, and Kumbha-Stambha—Vide "Hindu Architecture India and abroad, page 201". In this latter classification, the two designations Padmakānta and Kumbha-Stambha are nearer to Samrāṅgaṇa's Padmaka and Ghaṭa-Pallavaka. Matsya-purāṇa, designates its pillars by the names of Rucaka, Vajra, Dvivajra, Pralīnaka and Vṛtta.

Regarding the shape, the first two varieties i. e. Padmaka, and Ghaṭa-pallavaka resemble each other—both of them take the famous octagonal shape. Kubera is sixteen sided and the Śrīdhara is oval.

Now coming to the different component parts of a column in the S.S., we find as many as ten of them. These are :

1. Stambhakoṭi
2. Praṇālinī
3. Pratipālana
4. Stambhamūla
5. Masūraka
6. Utkālaka
7. Kumbhikā
8. Stambhapiṇḍa
9. Patra
10. Rasanā and Jaṅghā

All these are innovations, as the component parts of a column, as described in works like Matsya, Bṛhat-saṁhitā and Kiraṇa Tantra are:

1. Vāhana
2. Ghaṭa
3. Padma
4. Uttaroṣṭha
5. Bāhulya
6. Bhāra
7. Tulā
8. Upatulā

The S.S. further describes a large number of component projections, entablatures and mouldings as follows:—

1. Talapaṭṭa
2. Bāhulya
3. Hīragṛha
4. Pravasana
5. Trikaṇṭa
6. Lambita
7. Ardhacandra
8. Khalva
9. Tumbikā
10. Lambikā
11. Kaṇṭaka
12. Patrajāti
13. Padma-patrī
14. Pedra
15. Tulā
16. Jayantī
17. Sandhipāla
18. Jayantikā
19. Pratimoka
20. Niryūha
21. Vedikā
22. Jāla
23. Rūpa
24. Kaṇṭha

As regards the relative dimensions of the component parts and mouldings of the pillar as well as the different and manifold allied structures—the entamblatures, the projections, the beams and the side decorations as tabulated above, a few may be indicated here.

Out of a dozen parts and mouldings of a typical pillar—Padmaka-stambha (S. S. 28. 20-27) the text says that the dimension of the Stambha-koṭi should conform to the volume, the width of the door, i.e. it should be a quarter of it. Similarly other dimensions can be worked out.

The exposition of the Pillar-architecture in texts like Mānasāra, Tantra-samuccaya, Īśānaśiva-gurudeva-paddhati etc. is very rich, but I have refrained from a comparative estimatimation for the simple reason that these pillars of the S. S. are characteristic of House Architecture (the Secular one) rather than of the Temple Architecture which these texts deal with.

The other Component Parts and Mouldings of the House

In its chapter entitled 'Nagarādi-sañjñā, the 18th—the S. S. has described some of the component parts and the mouldings of the house in a laxicographical manner and they should be noticed here. But as they throw a good deal of light on the development of the

house architecture, some of them along with the other scattered material regarding these component parts of the house, may be briefly dealt with here.

The first point to note in this connection is the hint which the S.S. provides to the development of the secular and religious architecture. While dividing the whole country into Janapada and the Nagara and giving the various sub-divisions of the towns and villages, it gives a list of twentythree synonyms of the house (see Part V. 'Temple Architecture').

The principal parts of a house were the Śālā (1 to 10), the Alinda, the Garbhagṛha, the entrance, the porch—all these had assumed enormous side-developments in the evolution of a full-fledged house. Śālā, the modern room or hall (receiving-hall, sitting-hall, the bed room, the study-room etc) was the chief unit of the house. Though the text, as we have seen, describes the Śālā houses of one to ten rooms, the principal varieties however, were ouly four, Catuśśāla, Triśāla, Dviśāla and Ekaśāla.

Alinda, the frontal modern lawn with verandah was one of the essential components of a house. The *Garbhagṛha*, the interior chamber, though the scacred-most in a temple, was the central compound with a Vāpī or Puṣkariṇī—the reservoir of water and laid with a cover over it (vide S.S. 18-20) in the residential house. In a house plot whatever was left after the planning of the corridor, the Alinda and the śālās was called Garbhagṛha (S. S. 19. 27). The entrance was a bit more complicated structure, necessitated, by the defensive considerations. The main door was placed on the dehalī and two big planks called the dvārapakṣa or Kapāṭapūṭa, Vāraṇa, Pidhāna etc. had an *Argalā* also called Kālikā, the door bolt. The main doors the gates of a fortified town had assumed an enormous structure, an edifice by itself, the gopurams with towers and turrets and even they invariably possessed the door-bolt called in that case a Parigha, Phaliha or Gajavāraṇa.

Again one of the characteristic features of the door-decoration in those days was the architectural accomplishment of a very high order—the Toraṇa--the arch. The S. S. (vide 18. 37-39) distinguishes three classes of arches, the golden, one made of jewel (maṇi-toraṇa) and the flowery (puṣpa toraṇa) and a moulding of these arches was called Siṁhakarṇa—a shape of Nāgarī 'Ṭhakāra.'

So far the principal parts of the house in modern terminology, the room, the interior and the entrance, have been taken into

account. Another very important member of every Śālā-house was the *Mūṣās* (the application of which ranged from one to twenty in number), the *Bhadrās*, the *Parisaras*, all may be rendered as porches or porticos. The portico is described, as Mūṣā, the intermediatory porch between a Śālā and Alinda vide S. S. 19-29). The interpretation of the term Mūṣā has already been attempted (Ch. V).

According to V. S. (Page 38), the principal component parts of a residential house are the Śālā, Alinda, the verandah or the corridor, the wall, Paṭṭa, the beam, the pillars, the windows or shutters and the Maṇḍapa, the pavilions different modes of applications of which produce different varieties of houses.

Pleasures of a house are its different establishments. A glimpse of all this is obtained by the following side-establishments in a house.

1. Mahānasa
2. Dvāra-Koṣṭha
3. Darpaṇa-gṛha
4. Dhārāgṛha
5. Udyāna
6. Jalodyāna
7. Krīḍāgāra
8 Vihārabhūmi
9. Amedhyabhūmi etc. etc. (vide ibid Ch. 18).

Apart from these few principal parts of a house-structure, there were so many structures lending it beauty and making it comfortable and providing it light and a free passage for the air. Every house had stairs, which if made in brick work, were called Sopāna, and if wooden structure, it was called Niśreṇī. The windows in the walls were called Vātāyana, Avalokanaka—literally the passage for light. A special characteristic of the houses those days was that every roof of every room was provided with a hole (chidra) and it was called Ulūka. There were balconies made of timber called *Viṭaṅka* and there were so many side-projections as *Vitardikā*, *Niryūha*, *Valīka* etc. etc. Again every house was provided with a drain passage of water called Jala-nirgama or Udakabhrama. This in brief is a very modest enumeration of the component parts of the house. The other details regarding the door, the pillar and the roof have already been dealt with in their respective chapters and the remaining details are gathered together in the Glossary below.

Lastly, the mouldings have to be attended to. As a matter of fact, they are specially associated with such parts of the House-Structure as the Pillar, the door frames, the walls and the crowning part, the finial, the towers, and the turrets together with the different shapes of the houses in general and their principal parts in particular.

The S. S., as I have pointed out several times, draws a line of demarcation between domestic, popular residential houses and the temple, the Prāsādas. This distinction has been maintained also in the allied respective architecture too. We have already noticed mūṣās and śālās as characteristic of these residential houses. But they are conspicuous by their absence in temples. Similarly, so many mouldings like Siṃhakarṇa, Kapotāli, Ghaṇṭā, Karṇa, Ardha-pakṣa, Dhvaja, Chatra, Cāmara, Pakṣirāji, Samarālapallī, Patras, etc. together with a very big list (see Glossary) so commonly employed in the Prāsādas, the temples are a taboo in the residential houses (S. S. 28.55-6).

For the completeness' sake, the following component parts and mouldings are tabulated (vide the 18th Chap. Nagarādi-Sañjñā)

Bhavānāṅga—the parts—the component and the auxiliary, together with so many other buildings and mouldings:

1.	Harmya	Roof
2.	Sopāna	Stairs
3.	Niśreṇi	Wooden stairs (the ladder)
4.	Kāṣṭhaviṭaṅka	Wooden structure (houses)
5.	Saudha	Sudhālipta (Harmya) and that should have a basement too (Kuṭṭima)
6	Kuṭṭima	
7.	Abhigupti	A shed on the roof
8.	Vātāyana	Window shutters
9.	Avalokana	Ventilators in walls
10.	Avalokanaka	Ditto. (smaller)
11.	Uloka	Hole in the roof for the passage of air and light
12.	Harmya-prākāraka	It is defined as harmyatalakaṇṭha. Is it what we call muḍera or chajjā alround the roof ?
13.	Vitardikā	Aṣṭamāla—a row of pillars.
14.	Īhāmṛga	Moulding in shape of a deer on pillars of vitardikā.
15.	Niryūha	Cross circle, a small tower (Ency. H.A.).
16.	Valita	
17.	Catuśśāla	A quadrangle having buildings on four sides
18.	Triśāla	,, ,, ,, ,, three ,,
19.	Dviśāla	,, ,, ,, ,, two ,,
20.	Ekaśāla	,, ,, ,, ,, one side
21.	Śāla	One unit building
22.	Vāpī or Puṣkariṇī	The middle compound of the śāla structure.
23.	Garbhagṛha	,, ,, ,, ,, ,, (when covered)

No.	Term	Meaning
24.	Trikuḍya or Upasthāna or Upasthānaka	Mahājanasthāna
25.	Prāsādikā	Balcony (see Ency. H. Arch.).
26.	Dīrghaprāsādikā or Valabhī	Balcony (see Ency. H. Arch.).
27.	Alinda	Balabhī in front of the Śāla.
28.	Valabhā	Balabhī without a śāla
29.	Apavaraka or Catuṣkuḍya	Small structure i.e. catuṣkuḍya
30.	Śuddhānta	Inner chamber.
31.	Pratolī	Building structure like that of a suraṅgā
33.	Kakṣā	Courts
33.	Upasthānaka Apavaraka	Koṣṭhaka
34.	Kaṇṭhā, Kuḍyā, Bhitti and Caya	Wall plinth etc. Wall and Wall-Masonry
35.	Bhaktaśāla or Mahānasa	Kitchen. ,,
36.	Dvārakoṣṭhaka Praveśana Dvāranirgamana	Entrances
37.	Udakabhrama	Water channel
38.	Bhavanājira	Courtyard or compound in House
39.	Vanājira	,, ,, ,, in Forest
40.	Āśramājira	,, ,, ,, in Hermitage
41.	Dehalī or	—
42.	Kapāṭāśraya	—
43.	Kapāṭa or Dvāra-pakṣa or Kapāṭa-pūṭa or Pakṣa or Pidhāna or Va-raṇa or Dvāra-samvaraṇa.	Door
44.	Kapāṭasampuṭa or Kapāṭayugala	Both the doors. Ditto
45.	Kalikā or Argalā	Door bolt.
46.	Argalāsūcī	Door bolt, bigger in size.
47.	Parigha or Phaliha or Gajavāraṇa	Door bolts in the lofty gates of the towns.
48.	Phalaka or Jāla	Ventilators
49.	Toraṇa	Arch
	Suvarṇatoraṇa	Golden arch
	Maṇitoraṇa	Jewelled arch
	Puṣpatoraṇa	Flowery arch
50.	Siṁhakarṇa	Moulding in shape of Nāgarī-ṭhakāra

51.	Saṁyamana	Open space for lawns etc.
52.	Marālapālī	Wooden moulding.
53.	Praṇālī	Water channel from the roofs.
54.	Prākāra	Kaṇṭhā of the court-yard.
55.	Pradvāra	Vicinity of the entrance
56.	Sthala or Sthālaka	Pavement of the entrance
57.	Mūtrabhūmi or Amedhya or Varcaska or Avaskara	Urinal
58.	Parisara	
59.	Aṭṭa	towers
60.	Aṭṭālaka	,,
61.	Aṭṭālī	,,
	Aṭṭālikā	,,
62.	Dhārāgṛha	(S. S. 18.47-50; see also V. L. and Part IV).
63.	Darpaṇagṛha	(S. S. 18.51; also V. L. and Part IV)
64.	Gopura	Lofty gate in Prākāra
65.	Mahādvāra	Main gate
66.	Pakṣadvāra	Side gate
67.	Upakāryā	—
68.	Kṣauma	Aṭṭālaka
69.	Jalodyāna or Jalaveśma	Water park
70.	Krīḍāgṛha or Krīḍāgāra or Vihārabhūmi	Play-ground
71.	Devadhiṣṇyā, Surasthāna, Caitya, Arcāgṛha, Devatāyatana, Vivudhāgārā	Temples and shrines.
72.	Sabhā	Council Hall

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CHAPTER IX

HOUSE-DECORATIONS AND OTHER EQUIPMENTS

A, **House-Decorations.**—Without going into the details of this subject which is really the most conspicuous element of our ancient architecture, let me tabulate the objects as are prescribed by our principal text, the Samarāṅgaṇa-Sūtradhāra :—

(i) Objects of Decorations—

Rājabhavana	Śayana	Chatra
Vāstukakṣā	Āsana	Patākā
Sabhā	Bhājana	Dhvaja and
Devakula	Ābharaṇa	Other Upakaraṇas

(ii) Decorative motifs prohibited in secular architecture.

1. All the gods (i.e., only some gods can form decorations here).
2. Daityas
3. Grahas
4. Tārās
5. Yakṣas
6. Gandharvas
7. Rākṣasas
8. Piśācas
9. Pitṛs
10. Pretas
11. Siddhas
12. Vidyādharas
13. Nāgas
14. Cāraṇas
15. Bhūta-Saṅghas (with their females & sons).
16. Pratīhāras, Pratīhārīs and their Adhikṛts and their weapons.
17. All the nymphs, the Apsarasgaṇas.
18. Dīkṣitas
19. Vratīs
20. Pāṣaṇḍīs
21. Nāstikas
22. Hungry persons
23. Sick with ailments
24. The captives and sufferers of pains (colic, etc.).
25. The wounded
26. The burnt
27. Besmeared with oil, blood & dust.
28. Mads
29. Intoxicated ones
30. Impotents
31. Idiots
32. Nudes
33. The blinds
34. The dwarfs
35. Swing-sports—Dolākrīḍās
36. Elephant-captures
37. Fights between the gods and demons
38. The quarrels of the kings
39. Animal fights and their crushing or destruction
40. Hunting

41. The Rasas like Raudra, Dīna, Adbhuta, Vībhatsa and Karuṇa.
42. Gajayāna, Aśvayāna and the Rathayāna
43. Vimānas
44. Āyatanas
45. Houses on fire
46. Forest fires
47. Trees devoid of flowers and fruits; those contaminated with bad birds as well as those having one branch or two branches; those dried up, broken down, rough and full of holes and those inhabited by the spirits, such as Kadamba, Śilmalī, Śelu, Tāra, Kṣāra and Lūkā and those which are full of thorns and are bitter in taste.
48. Birds like vultures, owls, doves, hawks, crows and herons, those moving in the night and those eating flesh.
49. Animals like elephants, horses, buffaloes, camels, cats, donkeys, monkeys, lions, tigers, hyenas, hogs, deers, jackals and other meat-eaters (both beasts and birds) as well as those living on mountains and in the forests.

(iii) Decorative motifs allowed in secular architecture.

1. Kuladevatā
2. Two well-decorated Pratīhāras.
3. Crooked Dhātrī along with her companions.
4. The Pratīharīs (females) on both the doors accompanied by the jesters and Kañcukīs.
5. Treasures—Nidhis with Śaṅkha, lotus etc., pouring from mouths the heaps of jems and jewels.
6. Lakṣmī and Vaiśravaṇa
7. Śrī
8. The Bull
9. Cow with her calf
10. Patralatā: leaves and creepers bending with fruits and flowers both in the internal and external wa
11. The birds like swans, Karaṇḍa, Cakra moving on the lotus beds and playing with the children.
12. Well-dressed in variegated garments, the women in amorous sports.
13. The gardens–Udyāna-bhūmis —blooming and glowing with the beautiful trees like Campaka, Aśoka, Punnāga, mango, Tilaka etc. where the cuckoos are singing.
14. The seasons with their characteristics and respective signs and manifestations.
15. Long lakes (Dīrghikās) girdled by the water, birds like Kadamba, Kurura, Krauñca, Haṁsa, Sārasa; shining with the arbours of Ketakī flowers in midst of the cane thickets grown on its banks; and covered with the lotus beds hiding the fishes in the water.
16. Caverns (Pānabhūmis)— where beverages of Ikṣu etc. are kept in golden pots and

those made of precious stones, placed on the leaves of the lotuses.

17. Singing, dancing ladies shown on the stages of theatres and music chambers.
18. Domesticated birds like Cakora, Śuka (parrot) and Sārikā in cages.
19. Jolly cuckoos, peacocks and hens etc.

B. **Other equipments**.—These mean house-hold furniture like couches, cots, and so many other articles of furniture. We have already taken into our account the evidence of the S S, on this score—vide Pt. 1 Chapt. V—cf Śayanāsana. Now without going into details a brief notice of the evidence as furnished by the Mānasāra—vide Dr. Acharya's notice—H. A. I. and A.—may be taken.

It may be pointed out at the very out-set that the Mānasāra has devoted a good many chapters to this side-branch of house-architecture. Apart from couches (Śayana-vidhāna) it also deals with cars and chariots, the latter belonging more to temple-decorations than to the house-decorations. Similar is the case with Thrones (Siṁhāsana-lakṣaṇa), Arches (Toraṇa). Theatre (Madhyaraṅga) etc., etc. Here we are more concerned with the articles of household furniture which are treated, as already referred to (cf. Pt. 1 Ch. V), in its 50th chapter, the "Bhūṣaṇa-lakṣaṇa-vidhāna"—The Ornaments of the Body and Articles of Furniture, especially in the latter part. These articles in the terminology of the Mānasāra are called 'vahirbhūṣaṇa' and they include as many as the following eight articles.

1. Dīpa-daṇḍa (lamp post)
2. Vyajana (fan)
3. Darpaṇa (mirror)
4. Mañjūṣā (basket chest or box)
5. Dolā (swing or palanquin)
6. Tulā (balance)
7. Pañjara (cage) and
8. Nīḍa (nest).

The lamp-posts are of two kinds, the stationary, placed in front of the house and the moveable. The former are made of wood, iron or stone, the latter of wood or iron. They may be square, octagonal or circular in shape. The *Vedikā* (platform) or the pedestal at the bottom of these is generally shaped like a lotus.'

'The fan-post, as well as the fan itself, is described in like manner. These posts are made of timber or iron, but the fans appear to be made of leather'.

'Nine alternative measurements are prescribed for the mirror, namely, from 5 (or 6) *aṅgulas* upto 21 (or 22) *aṅgulas*. The mirror

should be quite circular (*vṛtta*), with the edge a little raised. The surface must be perfectly bright, the rim being decorated with linear ornaments (*rekhā*) and on the reverse with the figures of Lakṣmī and others.'

'Three kinds of *mañjūṣā* are described in detail. They are made of either timber or iron and are square, rectangular, or circular in shape. They generally consist of one, two or three compartments or chambers (koṣṭha). The *Parṇa-mañjūṣā* looks like a box or trunk. The *taila* (oil) *mañjūṣa* is apparently a receptacle for oil. It does not differ from the other, except in its greater height. The third kind is called *Vastra-mañjūṣā* and is easily identified with a ward-robe or linenchest. Its breadth is said to vary from one to three cubits, the height and length being proportionate to the breadth. As regards dolā, it is a swing and palanquin both. Its *phalaka* may be taken to mean the swing board.

'The balance consists of the horizontal balancing rod or beam, the strings by which the scale pans are suspended, and the scale pans themselves.'

Lastly as regards pañjara and nīḍa, the text has bestowed a greater attention to Pañjara. 'A number of birds and other animals are enumerated and the size of the cage in which they are kept, the measurements admitting in each instance of nine different varieties.'

The following is a complete list of the birds and animals for whom pañjaras are prescribed (see the measurements etc., in H. A. I. and Ab. p. 137):

1. Mṛga-nābhi-biḍāla (Musk cat)
2. Śuka (parrot)
3. Chātaka (rains-cuckoo or *cuculus melanoleucus*).
4. Chakora (partridge or *perdix rufa*)
5. Marāla (a crow-pheasant, a goose or duck)
6. Pārāvata (turtledove)
7. Nīlakaṇṭha (roller)
8. Kuñjarīya (ground-man)
9. Khañjarīṭa (wag-tail)
10. Kukkuṭa (cock)
11. Kulāla (*phasianus gallus*)
12. Nakula (mongoose, *viverra ichneumon*)
13. Tittiri (froncolin partridge)
14. Godhā(ra) (alligator)
15. Vyāghra (tiger)

CHAPTER X

THE DEFECTS OF THE HOUSE AND SOME VARIETIES OF THE DEFECTIVE HOUSES.

The defects of the house are principally associated, not only with the untraditional way of placing the doors etc., but also with breakage i. e. Bhaṅga, in any component part. It is bad and deemed as defective and is enjoined the Śāntika, a brief enumeration of which will follow in the preceeding paragraphs. The most prominent orbit of defects round which they revolve is the doctrine of Vedha—the obstruction as a result of the non-conformity of the mystic ideas of Hindus in the realm of architecture. We have already taken notice of such obstructions in a previous chapter (vide Dvāra-vedha) in connection with the door. Another source of defects is the masonry and material as well as the decorations and non-decorations and we have also taken into account the defects associated with them. Here in this chapter, we have, therefore, to confine ourselves to general defects, the avoidance of which gives us a perfect code of architectural canons, thereby furnishing us with a set of rules of House-Architecture, to be adopted as building byelaws in modern terminology. These building byelaws as they emerge from the complicated study of the defects, have been tabulated in a previous chapter—vide House Plans and Building Byelaws). Thus the universe of discourse of this chapter becomes limited and easy to handle. The greatest share of the defects in a house is associated with Bhaṅga—breakage (already referred to) The S. S. has devoted as many as four chapters (42, 43, 46 and 47) to the most exhaustive and copious description of this Bhaṅga in relation to a big list of the manifold parts and mouldings of the house. It also speaks of resultant evil-consequences such as death, misery and misfortune. The list is too big to be dealt with here. Among them the Toraṇa-bhaṅga (the breakage of the arch) is of special notice. The text says, that the breaking of an arch is a bad omen indicative of the breaking up of the Nation (vide 46. 9). Another bad omen is the entry of a dove—Kapota, into a house which is said to bring the greatest calamity. The bird is described as death incarnate, the abode of impurity and sins It is of four kinds—Śveta, white; Vicitra-kaṇṭha, of variegated neck; Vicitra, variegated all over, and Kṛṣṇaka-black. Their entry is regarded as a very bad omen and not only is an expensive Śāntika enjoined, but it is also directed that the owner of the house has to part with one-fourth of his wealth to the Brāhmaṇas if the entry in question is of the first variety of the devil dove—the white one, otherwise one-half, three-fourth or the

whole of it is to be distributed respectively, if the entry in question is of remaining varieties of the bird—the Vicitra-kaṇṭha, the Vicitra and Kṛṣṇa (S. S. 46, 32-33).

So far we have been busy with the non-architectural or mystic defects, now let us come to the defects of the architecture proper. This leads us to take up the defective houses resulting from the wrong orientation, the absence of some essential component, the wrong masonry and wrong material, etc. etc.

Among the big list of the śālā varieties, a formidable list of defective structures consequent on the improper placing of the Mūṣā etc. has already been hinted at in the preceeding pages. A few illustrations of the defective structures are given as follows:

1. Gṛha-Saṅghaṭṭa—A house having two śālās in one wall is called technically Gṛha-Saṅghaṭṭa.

2. Valita, Calita, Bhrānta, and Visūtra the four-fold defective houses (S. S. 48.11-13) are those, deemed very inauspicious.

3. Khādaka	7. Saparikrama	11. Bhinnadeha
4. Vikokila	8. Sāvaśyāya	12. Chinnavāstuka
5. Sacchatra	9. Hīnavāhu	13. Saṅkṣipta
6. Sakakṣa	10. Pratyakṣāya	14. Mṛdaṅgākṛti
		15. Mṛdumadhya.

There are however, so many other defective structures referred to in the text as a consequence of the wrong application of the Alindas:—

(i) A house in which the Śālā is lower than the Alinda is bad.

(ii) If only one Alinda is to be constructed in the house, it should be done so, either on the front or on the right. If it is done on the left or in its hind part, it is bad.

(iii) A special variety of Alinda called Halakālinda if placed wrongly, is bad and is instrumental of evil consequences.

In the end, without multiplying the illustrations, let us conclude with the general defects of the house, as the S. S. itself concludes in the concluding lines of the 48th Chapter, the concluding chapter of the House Architecture (vide 48.136-139).

General defects of the house.

1. Uccachādya	12. Anyonyadravya-viddha
2. Chidragarbha	13. Kupada-pravibhājita
3. Bhramita	14. Hīna-bhittika
4. Vamitamukha	15. Hīna-uttamāṅga
5. Hīnamadhya	16. Vinaṣṭa
6. Naṣṭa-sūtra	17. Stambha-bhittika
7. Śalya-viddha	18. Bhinna-śāla
8. Śiroguru	19. Tyakta-kaṇṭha
9. Bhraṣṭālinda	20. Niṣkaṇḍa
10. Viṣamastha	21. Māna-varjita
11. Tulātala	22. Vikṛta.

(See Glossary)

CHAPTER XI

CONCLUDING REMARKS

The over gratification in our spiritual civilization has done a great harm. In matters mundane or material, our planners have always looked to the West for light and guidance. We have altogether shut our eyes to our technical heritage. Though we have an important section of the Technical Sciences, in the All India Oriental Conference, what impact has it left on our National Reconstruction, especially State-craft and the Engineering and Architectural policy is not very difficult to see. Our Sthāpatya was very scientific. It has lost its tradition. The present writer has done some thing towards the study of this most fascinating branch of Indology by his humble pursuits—vide Vāstuśāstra-research-publications in about six volumes—Canons of Hindu Architecture, Sculpture and Painting etc. etc. The climatic conditions and so many other agelong modes and habits woven in the very texture of Indian life demand that our houses should be so planned as to give us cool shelter, in order to live camfortably and enjoy longivity. Nine-feet ten-feet high houses are a curse these days. Such low-roofed tenaments are basically wrong for this hot climate of India. They may be good for cold countries. Accordingly a few suggestions in a popular language are being put before the lovers of Indian architecture, who may take up the question with the Planning Commission for a re-orientation in our Engineering and Architectural policy. My 'Bhāratīya Vāstuśāstra' (Hindi work) and Vāstuśāstra Vol. I and II are pointer to advocate this reorientation in our national policy not only for the good of our cultural heritage but also for the good of living and longivity.

Modern House-Planning and what it can gain from Samarāṅgaṇa Sūtradhāra. From the previous pages a tangible picture of the House Architecture, as presented by Samarāṅgaṇa Sūtradhāra has already emerged. This picture is one of the sublimest heritages of our forefathers. It is upto us to appreciate its beauty and utility. We need a discipline of our senses to make them a fit apparatus for the perfect perception.

All the vital considerations necessary to make a living healthy and peaceful are bestowed upon the house plans. If material equip-

ments such as furniture, mozaic floors, ingenious door-shutters, beautiful designs of windows, attached bath rooms, curtains and the like are not included in them, we shall not allow that to deter us from having a look at them. The fundamental basis of these plans is purity. This purity includes sanitation, ventilation and lighting—the prime necessities of life. The modern spacious and open varandahas, the sky-clear lawns and compounds, the gardens, the bed, the reception room, the study-room, the worship-room, the store-room, the kitchen and the bath-room, all these can be well provided in the house plans as prescribed by the Samarāṅgaṇa Sūtradhāra.

The planning of the house and building is one of the finest traits of human civilisation. We know the story of a house—from its origin, the tree-branch structures to the fullest of development, the ostentatious mansions—the palaces of kings and temples of Gods together with the intermediary phases of evolutions, the manifold structures along with their component parts and mouldings, decoration and joinery, masonry and material in their successive stages. What light does it throw on the broad outlook of culture and the humanity at large ? The human civilisation, though it has reached its zenith, has not yet attained its crowning glory—the glory of self-realization. It is still far far from its destination. The direction of the journey too, has changed. The struggle, therefore, is keener. Where are we going ? Should we lose our soul altogether in our material pursuits. The spirit of man needs to be rediscoverd. "Mortal in the company or the Immortal" is a very old story ! How to regain that company ? The answer is not far to seek. We have to get rid of the unnaturalness about us. We have to change our direction from the unnatural parapherenalia of life establishment to the simple environments of Nature. For this, let the beginning be made in our living conditions. We should now choose the natural surroundings for our habitation—employ the natural materials in our houses, lead a life of simplicity and austerity. This is only possible when a new orientation is made in our house-planning. Śālā-models as prescribed by the texts like the S. S. can very well serve this end.

It does not mean that we should bid goodbye to all the advancement that our fore-fathers and the modern engineers and the architects have made in the art of building. The outlook needs a change. As the ancients reserved the superb art-craftmanship only to the buildings, devotional, and memorial, similar consideration should prevail with us. The public buildings, the temples, the town-halls may have edifices of large and sublime structures, but the dwelling houses,

unless simple and cheap and laid in the surrounding of Nature, can neither be conducive to healh nor to the peace of mind—the two essentials of good living.

House planning was never left to the caprice of the individuals in India. It was the responsibility of the state or the ruler to see that a certain minimum standard was adhered to by every house holder in matters of building his house. They were so rigid that they were codified and were given a sanctity of a religious character, so that they may never be violated. What is the present state of affairs? The building byelaws are there. Every house-builder has to get his plan sanctioned by the Municipal Board or the similar other corporation. Despite all this, the results so far, have been simply monstrous. The congestion, lack of sanitation, lack of symmetry and beauty as well as of religiousity (purity) etc. are every where to be seen abunduntly. It is a matter of gratification that in these days the town planning departments are a bit more awakened, but the task facing them is so enormous that, the absence of a clear-cut vision, must work havoc to any fitting solution of the house problem. Now, people have begun to talk of such materials as cost less. Nobody is, now, after the aforesaid grandeur or beauty or comforts. A small place to meet ordinary vital wants is enough. This consciousness, this awakening, this realisation of the grim realities is the most suitable time when we can turn our eyes to the past.

The Samarāṅgaṇa-Sūtradhāra's śālā-houses can solve our house problem. The material to be used is within the easy reach of all and the accommodation is just *to satisfy the essential wants*. The śālā-bhavanas can serve any variety of tenement. They can be built, also on a large scale. Some of the modern materials like cement, concrete, if employed, will make the houses last longer. They are best suited to the climate of India. The roofing should never be of reinforced concrete slab, instead the ṣaḍdāruka, tree timber planks obtained from such trees as mango, Mahuva or Neem abounding in every corner of the land should be employed. Walls, for security reasons may be made of brick and lime or brick, sand or cement. If the new townships or suburbs, the branch towns, the Śākhā-nagaras (vide the Town-Planning, the last part of the study) are planned, the houses therein should be planned in rows of śālā-houses, consisting of symmetrical, frontal varandahs, the Alindas together with porticos, the Bhadrās and hind portions the Parisaras. The central spaces are open and are large enough for plantation and vegetation etc.

Any housing scheme on a large scale is a great burden on the State Exchequer. How to raise the money in crores for a handful of houses on the modern models? This problem can be solved if coordinated and cooperative efforts are made in which the State gives subsidy and the individuals and cooperative-societies also contribute their mite with a zeal and enthusiasm worthy of a great nation to build houses, establish new townships, rejuvenate the villges, reorientate the living and revolutionise the character of the country. This is the essence of a planning, be it a house-planning, town-planning or any other planning—the individual, the society and the State, all contributing their shares.

N.B.—This dessertation was submitted about six years ago when in the National Planning no sufficient vigour for building houses and founding new towns was seen. Happily during the 2nd Planning period there has been a marked tendency to encourage building operations and raising new townships. This phase as anticipated by the writer does not however meet his advocacy wherein the National Building Policy should be more in keeping with the past rather than with the present foreign evolutions. Many a town in India today is planned out entirely on foreign pattern. The celebrated capital of the newly emergent Panjab (after partition) Chandigarh is a pointer to it. It is entirely against the genius of the land. Chandigarh has its own architectural pattern which, to the students of Indian architecture, does not appeal. From the practical considerations it may be all right to bid good-bye to the ornamental style of the old, but from the standpoint of cultural considerations we can not afford to forget our past altogether.

PART IV

Palace Architecture and Palace-Pleasures

A—Palaces

B—Accessory Buildings

C—Accessory pleasure-devices & structures, the yantras etc.

D—Other State buildings or public buildings.

Introductory.

We have already pointed out that the buildings in India had at least three broad categories—the residential houses for common people and the middle class people, the palaces and other gorgeous and magnificent structures and the temples. Accordingly we have devoted three separate parts to these three distinct architectural traditions of our land. We have already treated, howsoever meagrely, the common residential houses, the Śāla-bhavanas in the previous part. Let us now proceed with the palaces and other gorgeous buildings. In Indian tradition the king was as high as a god. He was considered as the fifth Lokapāla. Accordingly the Vimāna buildings or Prāsādas as treated in the texts like Mānasāra, Mayamata and Śilparatna do not make any distinction between the residences of the 'Taitilas', the gods and those of the Bhūdevas and Nṛdevas, the Brāhmaṇas and the kings. This is really a loop-hole in the treatment of House-architecture as has been treated in the aforesaid texts. The North Indian texts like the Samarāṅgaṇa and the Aparājita however are credited to rehabilitate the tradition on proper lines by drawing a line of demarcation between the secular buildings, the residential houses of men including the lords of men, the kings and the gods. Even in the former category, both these texts are univocal in bestowing the separate attention to both the kinds of planning namely the popular residential houses and the abodes of kings and nobles. In India or for the matter of any other ancient country, the kings had very high previleges and positions, in accordance to which, their abodes could never be conceived to be simple structures. The citedals, the castles, the gorgeous mansions, the fortified huge establishments—all these comprised the making of a king's palace. Later on when times were more peaceful and prosperous, these palaces further ramified into two distinct establishments, the residential-cum-administrative set-ups, the Nivāsa-bhavanāni and the pleasure-palaces, the Vilāsa-bhavānani.

A very unique feature of the planning of palaces is its stereotyped canon of courts, the Kakṣyās, which has been in vogue from the times of Rāmāyaṇa, the Epic age and fully adhered even in such modern palaces as those of Mughals in the medieval architectural history of our land. This point would be more amplified in its proper place. Further again, the palace-planning is a composite-planning which consists not only of the residential quarters of the king and his retinue, but a vast paraphernalia of huge establishments where the Council-

Chamber, the Sabhā, the stables for housing the elephants and other royal animals along with the pleasure-gardens dhārāgṛhas, etc., etc., are also given a proper attention. All this will be detailed ahead—vide Section B. These palaces of old were not only the residential houses of ruling sovereigns and kings but also the national museums and public places where manifold structures of imposing grandeur were built to add to the beauty of the Capital. This was not enough as there was a very high tradition of Palace pleasures in which the mechanical contrivances, the Yantras in their manifold varieties, used to be housed for not only the pleasures of the kings but also for amusement of the public. Accordingly this side-branch of Palace-accessories—the Yantras etc, will also be treated here and now—vide the Section C.

This is about the broad indication of Palace-architecture—both in its main buildings and accessory components as well as the accessory pleasures. We have however to give some attention to the public buildings gorgeous and magnificent in character and useful from the stand-point of civic amenities like library, picture-gallary, the courts (rural and urban), the rest-houses, etc., etc., as provided by the state, which in ancient India was centred in the ruling chief. Hence a brief notice of these cognate buildings also forms the subject-matter of this part—the Section D.

These buildings, therefore, all fall under the domain of Palace-architecture as their genesis and character rest on the fine architecture rather on popular architecture, the Śālās.

Further, under the Public Buildings, according to the charcteristic of the age, the public wells and tanks, the water reservoirs also are worthy of notice. Hence some space would be allotted to these most vital and useful establishments of the town, fully adhering to our scheme of the Vāstulakṣaṇa in the matter of Buildings as Jana-niveśa, Rāja-niveśa and Nagara-niveśa, the last of which illustrates this category of buildings.

N.B.—All these sections may be arranged in single chapter in this part.

CHAPTER I

PALACE-ARCHITECTURE

Rāja-Veśma: The opening sentence of the fifteenth chapter—'Rājaniveśa', says, "that the planning of the Rājaveśma was a component part of the planning of a town". Any town plan in ancient or medieval India must bestow sufficient attention to the Rājaveśma—the residential quarters of the kings and their kinsmen together with all the establishments of a king those days. This is what the S. S. says at the very outset (cf. 15. 1-8). It says that after the town has been planned on the famous site-plan of sixtyfour squares; all the roads both highways, and the central ones together with the adjoining Mahārathyās, Uparathyās and their auxiliary ones, the streets, lanes and bye-lanes have also been planned out, the fortification in all its ramfications and component parts of the surrounding ditches, ramparts and walls and the Aṭṭālakas thereupon has also been completed; the raised platforms, the Catvaras are also architecturally built and finished, the temples and shrines—the places of worship are allotted to the different deities allocated both in the interior of the town and in its exterior; then a piece of land selected at the western side of the centre, in orientation of the North, on the pada presided over by Mitra, a square, even and auspicious (i. e. conforming to the minutest details of the Śāstra) and bestower of fame, grandeur and victory, the palace of the king should be built".

Every building activity has got two main functions to be attended to, namely the engineering of the building—surveying the site, testing the soil and selecting one to be planned out, and the operating upon it in accordance with the plan set out in the sketches. Naturally, therefore, an important building work like that of a palace of a king has to be attended to, properly. The S. S., therefore, has devoted two chapters to this important piece of architecture of the Rājaveśma. The master architect first has to attend to its planning—the laying out of the different parts of the palace on different sites. This it has done in Chapter 15.

The site on which the palace should be erected is already pointed out. The S. S. makes a limited classification of Palaces only into three, namely, Jyeṣṭha, the superior type, Madhya, the intermediate type and Kaniṣṭha the inferior type, and they are to be located in the respective town types (cf. Ch. XV). In Mānasāra, palaces are

divided into nine classes with regard to their size, according as they may belong to a king of any of the nine-classes—Cakravartin, Mahārāja, Mahendra etc. etc. Next, the site-plan, i. e. Paramaśāyika of 81 squares, to be employed in the planning of a palace and the classification of three types are indicated. The Samarāṅgaṇa bestows its attention upon its defence and good look—the fortifications of the palace and its beautification. Though situated in the interior of the town, the Rāja-niveśa must have a surrounding moat and a rampart to ward off the insecurity of the palace. This fortification also consisted of so many architectural designs as *Aṅgabhrama*, *Niryūha* and strong towers and turrets, the crowning parts of the parapets—the surrounding walls and they are so laid as to make the whole structure beautiful.

After fortification, the question of the planning of the gates and doors is attended to. As many as three classes of doors are prescribed. It may be remarked here that the Indian technique of placing the doors is intimately related to the traditional site-planning. Hence sometimes a confusion is created as to whether a particular door is to be put in a particular direction or otherwise, because the Vāstudvāra and Bhavanadvāra are two different things. The text recommends the Vāstudvāra in the north-side of Rāja-mārga while the Bhavanadvāra of the palace towards the East. Naturally, therefore, the frontal gate—the main gate must be placed in the East. The main gate is technically called the Gopuradvāra and to be laid on the Pada presided over by Bhallāṭa. The magnificence of these Gopurams is our architectural heritage.

Another variety of doors to be placed in a palace may be termed as the cardinal doors being placed on the respective four cardinal points (S. S. 15. 11 (2nd line) to 13) i. e. Mahendra on Mahīdhara; Puṣpadanta on Vaivasvata; Gṛhakṣata on Aryamā and so on. The text is emphatic for laying out Gopurams on all principal directions perhaps to add to the grandeur of the Palace. The third variety of doors is technically known as Pakṣadvāras, the side doors, necessitated on odd hours when the main gates are colosed.

The fortified and well defended palace with its gates and Gopuras together with Pakṣadvāras and Bhramas, the enclosing cloisters has emerged in its full glory facing towards the East. Its varieties however, though enumerated to be as many as four, have not been explained. Perhaps these names were so common that the author did not deem it necessary to point out their relative distinctions. They are as follows:—

1. Śrīvṛkṣa
2. Pṛthivījaya
3. Sarvatobhadra
4. Muktakoṇa.

These palaces should have a good number of śālās—courts scattered all round to serve the purpose of the kingdom and house-hold establishments. The attached chart (appended in the end) will show at a glance the list of the following vast establishment of a princely palace in those glorious days located in the different Padas presided over by the different Pada-devatās.

Names of establishments.

1. Residence—the *Gṛha.*
2. Seat of Justice—*Dharmādhikaraṇa*
3. Store House—*Koṣṭhāgāra*
4. Pavilions of birds and animals.
5. Kitchen—*Mahānasa*
6. The pavilion of the public audience, i.e. *Āsthāna*-maṇḍ*apa* or *Sabhājanāśraya.*
7. Dinning hall—Bhojanasthāna
8. Vādya-śālā (Hall of the Instrumental Music).
9. The Bards.
10. The Arsenal—*Carmāyudhas*
11. The fashioning of the golden and silver ornaments.
12. The secret store-house—the *Gupti.*
13. Dance & drama—*Prekṣā* & *Saṇgīta*
14. The sheds for the chariots & the elephants.
15. The Vāpī
16. The Interior chamber *Antaḥ-pura*—the Harem well fortified

Note—Its Gopura, the main gate should face towards the North and the palaces of the queens should face towards the West.

17. Pleasure and swinging and play pavilions— *Krīḍā - dolā-ālayas*
18. Chambers of the Princesses—*Kumārī-bhavanas*
19. The alternative chambers of the queens

N.B.—The secondary inner chamber however, is to be located on *Indra.*

20. The lying-in-chamber—*Ariṣṭāgṛha*
21. The Aśoka Orchard.
22. The Batha—*Snāna-gṛha*
23. The shower *Dhārāgṛha.*
24. The Creeper pavilions—*Latā-gṛhas*
25. Wooden hills—Dārugiri—the Vāpīs and the well-laid flower lines—Puṣpa-vīthīs, and the flower pavilions—*Puṣpa-veśma,* together with the machine room—*Yantra-karmānta*

26. Water sheds (both for drinking and other uses)—*Pānagṛha*
27. Another store house
28. The factory of armaments—*Āyudha-Mandira*
29. The third variety of the store-house.
30. The chamber for the wooden-mortar (*Ulūkhala*) and flour-mill (*Śilāyantra*).
31. Timber work—*Dārukarmānta*
32. The gymnasium and the theatre and the picture palace—*Vyāyāma-Nāṭya-Citra-gṛhas*
33. Medical stores
34. Stables for elephants
35. Cow-sheds and the milk reservoir—*Kṣīra-gṛha*
36. The priest
37. Coronation pavilion and the one for alms, study and Śāntika also.
38. The places where Cāmara and Chatra are kept together with the Council House.
39. The stable for the horses—*Mandurā*.
40. The living chambers of the princes—The*Rājaputra-veśma*
41. The Study chambers of the princes—*Vidyādhigama-śālā*
42. The queen mother
43. Pavilions for palanquine and the bed chamber and the drawing room—*Śibikā-Śayyā-Āsana-gṛha*
44. Pleasure ponds and lotus lakes.
45. Palaces of uncle and maternal uncle.
46. Palaces of the Sāmantas.
47. Devakula, the royal Chapel
48. The Astronomer's place and also that of an Astrologer.
49. The Residence of the Commander-in-Chief.
50. The Assembly Hall—the *Sabhā*.

In this big list, it is difficult to draw a line of demarcation between domestic establishments and those related to administration. In those times, the palaces for all practical purposes served as seats of government.

It may be remarked here that such a vast establishment of a palace is no where to be found in any extant Śilpa work. The author Bhoja, being a king, it was but natural that he should present a grand picture of palace-architecture. In the Mānasāra, the list of Palace-establishment does not go beyond 42 (H. A. I. A. p. 124) while here it is about 50.

It may be remarked here that the Palace Architecture, like the Temple Architecture has got an unbroken tradition behind it,

Dr. V. S. Agarwala, (vide his Harṣacarita-Eka-Sāṁskṛtika Adhyayana, Appendix 1) maintains that the planning of the Royal palaces has had a code of stereotyped canons, meticulously adhered to, right from the age of the Epics (vide the palaces of King Daśaratha and Prince Rāma as described in Vālmīki's Rāmāyaṇa) down to the palaces of Moghal Emperors like Akabar and Shahjahan (see Fort at Delhi). It is in relation to Bāṇabhaṭṭa's descriptions of the royal palace of Emperor Harṣa that the learned Doctor has propounded a learned thesis with a ful-fledged background of the palace-architecture in ancient India kept in tact in early and later medieval periods of Indian History.

A special notice of the Royal palace is its distribution in several courts. These courts ranged from three to seven. Harṣa's palace had three. Kādambarī's Tārāpīḍa had seven courts (kakṣyās) in his palace, while Daśaratha five and Rāma only three.

Now the question is: how many courts can we adduce from the Samarāṅgaṇa's treatment of the Royal palace—Rāja-Niveśa (cf. the Ch. 15). The S.S., does not distribute the vast Royal establishment into courts as Mānasāra does into Antaḥ-śālā and Vahiś-śālā. It allocates the different places of the big royal paraphernalia—the residential palaces, pleasure-gardens and ponds etc., as well as the administrative set-ups to the different plots (and they were as many as eighty one, cf. the Parama-śāyika plan) presided over by the different deities. Now as there is no explicit mention of the courts in the treatment of Samarāṅgaṇa's palace architecture, the whole thing remains only a conjectural analysis. As per the diagramtic representation appended in the end as many as five principal courts—two in the exterior and two in the interior parts together with the central one reserved for the inauspicious and unhappy establishments (S S. 15. 47-8) on the Pada of Brahmā, are a certainty. Again, what are courts? The different śālā-spans may be taken to be courts and the S. S. does make a hint at this (cf. 15 18 i.e., 'Śālā-parikramopetam' which may be interpreted as with courts alround.

After this plan of the palace in its minutest of requirements, we are better fitted to go to the next chapter on the subject in which the varieties of palaces have been dealt with It may be pointed out here that Palace Architecture and Temple Architecture, for all practical purposes, are the same except that in a temple so many pavilions and so much of fortifications are not needed; otherwise the broad outlines are identical. The S.S. itself compares a palace to the seat of gods—the temple in the following beautiful verse :

इति कथितदिगादिभेदयोगैः सुरभवनानि भवन्ति यस्य राज्ञः ।
अविरतमुदितोदितप्रतापः स्वभुजजितां स चिरं प्रशास्ति पृथ्वीम् ॥ S. S. Ch. 51.

"This Rājaveśma, akin to the abode of the gods, if built in accordance with the injunction of the Śāstra by the king, he becomes competent to sway his suzerainty on the whole earth whose girdle is the seven oceans, after he has overcome his enemies by dint of his prowess". We are familiar with Amarakośa's diction—प्रासादो देवभू-भुजाम्' "this statement echoes the structural correspondence between temple and palace and reflects character common to both. The splendour and grandeur of each makes it a thing of beauty and of marvel. Upon places of highest eminence rises the Prāsāda (temple or palace) in monumental calm and dignity. The subtleties of its measurements, the relative proportions of its parts and graciousness of its ornaments are of most delicate description. It is the supreme expression of the noblest efforts and the best skill of artists. It exhibits the care by which the great builders obtain fine harmonies and please the minds of men. In the world of men, King is looked upon as the central figure and in ancient India, was supposed to represent in his person the various divine elements. By virtue of such a position, he commands dignitories and attendants and receives from his people, willing tributes. With the aid of accumulated wealth and the best skill available in the land, is constructed his palace. Round the hall of the King are constructed accessory structures to meet the demand of royalty"—Mallaya.

The palaces as treated in the 30th Chapter of the text are examples of an ornamental style, probably the Lāṭa style, the most characteristic features of this style being exuberance of ornamentation and decorative motifs as well as the abundant application of pillars. On styles I shall dwell at length in Part V—the Temple Architecture. For the present, it suffices here to say that out of the fifteen types of palaces as described in the 30th Chapter entitled Rājagṛha, (tabulated ahead) the first ten varieties are residential houses, while the last five are pleasure palaces (the former are called *Nivāsa-bhavanāni* and the latter, the *Vilāsa-bhavanāni* (vide S.S. 30th 120-21).

It may be noted that the Rājaveśma of the S.S. unlike that of Mānasāra does not admit of any classification in kind but degree only. The standard of measurement varies with its three varieties of the superior, intermediate and inferior quality. The first one of the one hundred eight hastas, the second of ninety hastas and the inferior one of seventy hastas, are deemed as fit—a lower measurement than this is prohibited.

The appended chart will show at a glance the typical architectural elements of these fifteen royal palaces as treated in the second chapter on Royal houses in the text (cf. XXX).

A little more on the ornamental architecture of these palaces is worth saying here. In the end of this chapter the author, while dwelling at length upon the architectural characteristics of the ornamental super-structure of these palaces, has referred to seven kinds of Lumās (or Lūpās—cf. Mānasāra and other Southern texts) Lumā is a decorative flower-like motif forming an essential composition of the Vitāna the canopy. Ramraz defines Lūpā as: "a sloping and projecting member of the entablature etc., representing a continued pent roof. It is made below the cupola and its ends are placed as it were suspended from the architraves and reaching the stalk of the lotus below". These Lumās, according to the S. S., are seven in number—Tumbinī, Lambinī, Helā, Śāntā, Manoramā, Kolā and Ādhmātā; in Aparājitapṛcchā however, their number is nine—add to the first five (which are common to both) of the Samarāṅgaṇa—Gāndhārī, Hasti-jihvā, Nāgāṅgā and Bhramarāvalī (the last being one of the names of 25 Vitānas in the S.S.).

Lumās or Lūpās are indissolubly connected with Vitāna (Canopy) owing to their forming an essential component. It is to the Lumās that the Vitānas owe their charm and grace. The very name Vitāna is suggestive of the fact that the vault of the Vitāna assumes forms of flowers of various kinds. According to observation of P. A. Mankad (vide introduction to Aparājitapṛcchā—pp. CXXXV) Domes and vaults (the characteristics of the Moghul Architecture in the later medieval period) did exist in India in multifarious forms long before the advent of the Mohamedan rulers. "How far the Indian constructive and decorative characteristics were contributory to the development of the Saracenic domes etc., of the Moghul period and whether the Indian influence came to be exhorted in the formation of the substratum and super-structure of these forms will remain a moot question till whole literature on the Indian type of Vitāna is available".

Now without entering into the further details of the architecture of these Palaces (reserved for part V), it is necessary to introduce the main elements of this class of Palace architecture. It is a composite architecture in which house-architecture and temple architecture together with Hall architecture (vide 'Sabhā', the Council Hall) have all played their part. The most predominant of a Śālā-house, as we shall presently see, is the abundant application of the corridors

(Alindas) and porticos (Bhadrās) together with the Central halls—the śālās. This characteristic has been fully preserved here. The tabulation (appended) of these palaces with their main characteristics of Alindas and Bhadrās may be compared. We have indicated the unbroken tradition of the courts in a palace. These Alindas, numbering as many as four in practically all the types of the palaces treated by the S. S. presuppose an open courtyard (vide Commentary on Bṛhatsaṁhitā:—

'अलिन्दशब्देन शालाभित्तेर्बाह्ये या गमनिका जालकावृताङ्गणसम्मुखा ....' ।

By the word 'Alinda' is understood the lattice-covered path beyond the wall of a hall and facing (or in front of) the courtyard. This architectural planning of the houses like Sarvatobhadra, Nandyāvarta, Vardhamāna, Svastika and Rucaka, the śālā houses, as described in the ancient sources like Kāmikāgama, Agnipurāṇa (vide Enc. H. Arch. p. 47-8) corroborate this essential constituent of Alinda. The S. S. too follows this ancient tradition in its treatment of the Palace architecture (Ch 30). Again the chief characteristic of the Hall architecture—the abundant employment of Pillars is fully assimilated here (vide Tabulation in the appendix). The super-structure of storeys with manifold mouldings and so many other decorative elements, the chief characteristic of temple architecture, is fully displayed here in the sublime architecture of the palace. It is a controversial point whether temples owe their super-structure to the lofty palaces or vice-versa. Scholars like Bhattacharya (vide C. I. A.) maintain the former position. In my opinion, however, the case is otherwise. I have throughout maintained that it is the religious architecture that originated and developed first on the sacred soil of India. Hence it is beyond comprehension to admit that the Temple architecture instead of becoming the model, should be a copy. In very ancient times, the residential quarters of a king were for all practical purposes, the citadel. The court, the treasury, the soldiers' barracks, the council house, and the ministers' houses were grouped round the royal castle and formed a part and parcel of it. Later on, though many a new establishment was added to it, it did not undergo any substantial modification (vide S. S. Ch. 15). Hence my contention is : Later development of palace architecture resembling a lofty super-structure with storeys, pinnacles and other ornamental mouldings and decorative elements of a Prāsāda were copied from it.

Stone architecture, originally a taboo for residential houses of men —the Secular architecture, also gradually was relaxed. The kings must have taken the first advantage from this relaxation and made their houses in imitation of the Mandira, the stone structure

CHAPTER II

ACCESSORY STRUCTURES

Special Houses, the Halls and the houses of animals, the Vāji-śālā and Gaja-śālā

Now that the planning of palaces has been discussed in brief, let us take up the other two classes of houses, the special houses called the Sabhā and the houses for animals, stables for horses and elephants in this fresh chapter. Though these structures formed a part of the palace and could have been treated in one chapter, but I have not done so in order to keep up their individual characteristics as a class of architecture by itself. Being accessory to the Palace, they are being dealt with in continuation with the Palace in this auxiliary chapter.

The Sabhā

Sabhā as a building is an ancient institution. There are many references to it in our sacred lore (A.V., XIX, 55,6; Taitt. Saṃ. III. 4, 8, 6, Taitt. Brā , 1.1, 10, 3; Chānd. Upniṣad, VIII-14). Their special features in the Vedic times were their pillars and fire altars. It is a pillared hall architecture and this characteristic of the Sabhā has been well-preserved in the S.S. as we will just see.

In the epics we find an elaborate description of many Sabhās and they give a clue to their use as an assembly hall or a council chamber. The Mahābhārata has a separate Parva called Sabhā-parva, wherein Sabhās like Indra-sabhā, Yama-sabhā, Varuṇa-sabhā, Kubera-sabhā, and Brahma-sabhā are described.

In the Mānasāra (III, 7-8; XVIII, 200 ; XXXIV, 562-563) sabhā from an architectural point of view, has been described as a type of building, an edifice and a public hall which indicate its varied uses and Dr. Acharya, on the authority of Vedic India Vol. II, page 426-427 (vide An Ency. H. Arch. 515) writes : "There must have been suitable structural arrangement for the transaction of judicial, commercial and political business and for the reception of courtly, well-born wealthy persons and kings and for the performance of gambling, merriment, social intercourse, debates and contests.

I have in my own way called these places as pulpits for religious sermons and forums for discussions. Sabhā in this context was the Darbar Hall in the palace. It has been an invariable feature of all

the royal palaces both in the East and the West. It may be remarked that the modern spacious drawing rooms and reception halls as society rooms in private dwelling houses had their proto-types in the Sabhā buildings. As per the S. S. also these Sabhās formed a part of the Palace (vide S.S. 15.49), its use is described as the protection of the Royal palace.

The text describes the following eight-fold Sabhās in its Chapter—27th, the Sabhā:—

1. Nandā, 2. Bhadrā, 3. Jayā, 4. Pūrṇā, 5. Bhāvitā, 6. Dakṣā, 7. Pravarā and 8. Vidurā.

As already pointed out, the most characteristic feature of the planning of a Sabhā building is the abundant use of Pillars. In the first 5 buildings of the Sabhā called Nandā, Bhadrā, Jayā, Pūrṇā and Bhāvitā, pillars, as many as thirtysix, should be constructed in each of them and make them look like pillared halls with corridors and galleries all round supported by separate pillars. Thus the number of pillars still goes higher up.

The distinguishing features of the remaining three Sabhās are the absence of pillars in all, corridors in the sixth type called Dakṣā, doors in the seventh, called Pravarā and Pragrīvas and doors both in the eighth called Vidurā.

The Aśva-Śālā.

The S.S. gives an elaborate description of the royal stable (Aśva-śālā Ch. 33) and with its minutest of equipment most suited to horses the hobby of the princes of those times and the only most convenient royal conveyance of the period.

In this chapter we have to dwell upon the following four topics, namely:

1. Planning of the stable proper, with its component parts.
2. The equipment of a stable.
3. The housing of horses.
4. The accessory chambers to the stable.

1. Planning of the Stable Proper.

It should be laid out on the site of *Gāndharva or Puṣpa-danta* in the compound of one's house. It admits of three classes, the largest type being in the measurement of one hundred Aratnis (an Aratni is equal to one hasta) i.e. 150 ft.; the intermediate one the eighty aratnis i.e. 120 ft. and the smallest type only sixty aratnis i.e. 90 ft. Again it should be so placed that the horses housed in it keep to the left of

the owner, while he is passing out of it. The stable forming a component part of a palace, should be laid to the south of the Inner Chamber (Antaḥpura) so that while entering into it, their neighing should be heard on the right and this is deemed as auspicious. The main gate of the edifice should be laid either in the east or in the north and it should be decorated with arches. It should have four compartments—(śālās) each having a 'prāggrīva'. Its height should be ten aratnis i.e. 15 ft. and its breadth eight aratnis i.e. 12 ft. and in the wall the Nāga-dantas are to be constructed.

The principal components of a horse-stable are:—

1. *The Yavasasthāna*.—It may be called granary—the place where grass was stored.
2. *The Khādanakoṣṭhaka*.—The manger where horses were fed with grass.
3. *The Kīlakas*—the pegs, khūṇṭās with which the horses were fastened with ropes.

These were all finished architectural establishments. This Yavasasthāna is a wooden structure. It should be placed in the Brāhma corner. The wood employed in it should be of one of these trees—Dhātakī, Arjuna, Punnāga, Kakubha and it should be examined and approved by the attending physician. It should have a height of at least three Kiṣkus (one Kiṣku is equal to 42 aṅgulas). The length and the breadth of the Khādana-koṣṭha should be equal to 3 hastas. For the fastening of all the five-fold limbs (technically called the Pañcāṅgī) several sets of these pegs should be placed on intervening spaces and one principal wedge should be secretly laid out.

2. The equipment of a stable.

The list of the equipment of a stable is simply formidable. It consists in the first instance of the place for fire keeping (South-West corner), the water pot (North-East), the place for mortar, Ulūkhala (North-West) ; secondly it consisted of a number of implements like Niśśreṇī (stair-cases), Kuśa (sacred grass), wells covered with planks, Kuddāla, Uddāla (spades etc), Guḍakas (balls), Śukta-yogas and Khuras (hoofs), hair-cutters, horns, hatchets, Nādyās and the lamps—all these to be placed in the South-West. Again there should be a good number of pots for storing water etc, to be used in the event of outbreak of fire etc. Thirdly, the Hasta-vāsī, Śilā (the stone) lamp, Darvī, Phāla and shoes, manifold varieties of Piṭakas and Vastis should also form a part of the equipment, of a stable.

3. The Shed.

There is an interesting account of how the horses are to be housed in a stable. The places where the horses were fastened, were called Sthānas (modern thāna—even today we call it thāna). Only the S.S. has credit to mention it (Ch 33. 21-24). A series of Sthānas planned in a row formed the Aśva-sālā, which was always long (cf. Raghuvaṁśa V—"Dīrgheṣvamī niyamitāh paṭa-maṇḍapeṣu").

These were well decorated. Their dimensions (indicated in Ch. 33.22) are one Kiṣku in Āyāma and three Kiṣkus in Vistāra. These Sthānas are always to be laid facing either to the East or to the North. Again they are so constructed that their ūrdhva-bhāgas—the frontal parts should have the higher levels than those of hinder ones. Further again they should be quadrangular in shape.

Now as regards the fastening of the horses, the first direction is that a space of four hastas in all the corners of śālā, the chamber, should be left vacant before the fastening of the horses is to be undertaken. The second direction insists that comfortable position and enough space should be allotted to each horse, so that they may not touch one another and feel congested. This is only a general direction. Orientation of the directions has always been a matter of supreme importance, not only to the building-planning of India, but to any planning in ancient India. Here in the stable, placing of the horses must have due regard to this institution of orientation. Here it may be noted that the orientation of the chamber and the orientation of the horses stationed in it are two different things. For example, the orientation of the chamber to the South while acclaimed good, is bad for the horses. The horses can be stationed facing the eastern direction. This being the most auspicious in all matters—in giving bath, dressing and decorating, worshipping and other auspicious performances of the horses. These prescriptions are not dogmatic. They relate to the hygiene of the place, the morning rays of the rising sun would be a perennial source of health and longivity to the horses. Similarly the southerly orientation is also acclaimed as auspicious. The chamber facing the South and the stable being placed on the pada presided over by Fire God—the soul of the Horses (Ātmā vahniśca vājinām), were both deemed as auspicious. The horses so placed never get old and feed well (Ajaro bahu-bhoktā ca). The Northerly orientation is also not bad, because in this position too, the rays of the sun make a circulation as it were and so are beneficial from the point of longivity and health. The southern direction and western direction of the

stables are deemed inauspicious. Similarly the South-East, South-West, North-West and North-East are also bad.

4. Medical Home.

The text is emphatic that even for a moment sick horses should never remain with the healthy ones for the simple reason that they may develop infection (vide verse 74). Therefore, as many as four accessory chambers are needed and are termed as:—

1. Bheṣajāgāra—the Dispensary.
2. Ariṣṭamandira—the lying-in-chamber.
3. The Vyādhita-bhavana—the hospital or sick wards.
4. Sarva-sambhāra-veśma—medical stores, where-in should be stored all kinds of medicines-the salts, the oils, vartis, etc.etc.

All these structures (veśma-catuṣṭaya, 33, 78) are to be laid adjoining the stable proper and constructed beautifully with wall made strong with plaster (सुधावन्धदृढकुड्य) and having high gate-ways and porches (prāggrīvakas). They need not have partitioned rooms in them (viśālāni) but be simple rooms (sugamāni)

Gaja-śālā.

Like Aśva-śālā the Gaja-śālā, (Ch. 32) is not so elaborately treated. The S. S. classifies stables for elephants into the following seven varieties, the first six being auspicious and last inauspicious:

1. Subhadrā
2. Nandinī
3. Su-bhogadā
4. Bhadrikā
5. Caturaśrā
6. Varṣaṇī &
7. Pramārikā (the killer).

The text enjoins that these stables for elephants should be planned very spacious and their relative measurements should be akin to those of the palaces, the largest type, the intermediate one and the smallest type. Their special architectural characteristics being the employment of the śālās, karṇa-prāsādas and the prāggrīvas--the distinguishing feature of each of them is the different application of these motifs.

CHAPTER III

PALACE PLEASURES

The mechanical contrivances, the Yantras.

Introduction.

Tantra and Yantra are familiar words in Sanskrit. In my opinion Tantra is science and Yantra is an art. The former a knowledge—a Śāstra, the latter a mechanical achievement, both are of hoary antiquity. While so many Tantras are available, the Yantras, as charts which stored up within their confines spiritual power, are also there in esoteric worship, but the Yantras—the mechanical contrivances are extinct altogether. In the traditional list of sixtyfour arts (vide commentary on Kāmasūtra by Yaśodhara) there is mentioned also a Kalā, called Yantra-mātrikā on which the commentary says "Sajīvānām nirjīvānām yantraṇam, Yānodaka-saṇgrāmārtham śāstram, Viśvakarma-proktam". Dr. Acharya (H. A. I. and A. page 15) says (cf. 53. Yantra-mātrikā): "The art of making monograms, logographs and diagrams. Yaśodhara attributes this to Viśvakarmā and calls Ghaṭanā-śāstra (science of accidents)".

With due respect to the learned Doctor, I may submit my interpretation: The Yantras admit the three principal classes—firstly, the Yāna-yantras, conveyances like Vimānas and chariots, secondly, the Udaka-yantra, water machines, pipes and showers technically called Vāri-yantra and Dhārā-yantra and thirdly, the machines of warfare (Saṅgrāmārtha). This interpretation fully fits with the broad categories of Yantras, the S.S. has described, as we shall presently see.

Yantra-vidyā was applied art of Dhanur-vidyā. Some of the weapons could not have been used without some mechanism attached to them. We know four classes of Śastras—Mukta, Amukta, Muktāmukta and Yantra-mukta. In the S. S. weapons such as Cāpas etc. Śataghnīs etc. Uṣṭra-grīvas etc. are said to be operated upon by a Yantra only (S.S. 31-108). The species of arrows like Nalikā and Bṛhannalikā were also used by some mechanism akin to that of the modern guns. The science of Archery is full of such details.

In the Mahābhārata there are clear and vivid descriptions of a good number of Yantras, e.g., Śastras (defending weapons), āstras (throwing weapons), bows and arrows equally terrible as the modern weapons e.g.:—

The Astras like :—

1. Āgneyāstra— (Fire-vomitter)
2. Indrāstra— (Anti-Āgneya—rain-producer).
3. Varuṇāstra— (Producing terrible & violent storms),

and Śastras like Bhuṣuṇḍi, Śataghnī and Sahasraghnī, akin to the modern machine-guns, sten-guns and tanks, together with Yantras like Candramaṇi by the help of which water could be produced on the deserts—can not be under-estimated.

All this speaks of a great advancement in the science of warfare as well as the general advanced condition of the scientific knowledge in the times of Mahābhārata.

The mechanical achievements of the Mahābhārata, however, did shadow the Indians for a long time. There are innumerable references in the literature which speak of an unbroken chain of the mechanical skill in this country. All these references to the different and manifold varieties of Yantras have been ably worked out and presented in his 'Yantras or Mechanical Contrivances in Ancient India' by Dr. V. Raghavan.

When the recorded literature speaks of the glorious heritage of these secular achievements, it must have undoubtedly formed the subject matter of discourse and discussion as well as enunciation of the norms and guiding principles for the artisans. Hence the Śāstra and its Practice both must have been flourishing in those bygone days.

A good many works and the references thereof have been found and on their basis some hypothesis of glorious scientific heritage can be imagined. Moreover, some of the monuments, e.g., Iron Pillar of Aśoka near Kutub-Minar is a mystery even today. How without an aid, mechanical operation and device thereof, such a huge and weighty iron pillar could be made stand up and what was that mechanism in that simple age that even after more than two thousand years this has not contracted with rust.

Samarāṅgaṇa's chapter on Yantra is remarkable, not only for its treatment, but also for the help it gives, in formulating some opinion about this branch of knowledge. It hints at the unbroken tradition of the Yantra-ghaṭanā—a traditional skill (cf. 31.87) and remarks that the traditional training of this art is a matter not of record, but of oral transmission from generation to generation through the unbroken chain of the masters and the disciples. Moreover, like the spiritual Yantras, these Yantras should also be kept secret and

unfolded only to the real Jijñāsu, otherwise they do not bear fruition (31.79-80).

Yantra and Its Elements (Yantra-Bījas). What is a Yantra? The S. S. opens with the definition of Yantra, that it is so called, because it controls and directs, according to a plan, the motions of things that act upon each other according to its own nature. That is a Yantra or machine is one which controls the Bhūtas and makes them serve a specific purpose. The Mahābhūtas, like the Earth, the Water, the Fire, the Wind and the Ether, though independent in their operations and movements, when brought to act in a particular way, that way may be called a Yantra (vs. 3. 4).

Elements, the essential factors of a Yantra according to the S. S. are only four:—

तस्य बीजं चतुर्धा स्यात् क्षितिरापोऽनलोऽनिलः।
आश्रयत्वेन चैतेषां वियदप्युपयुज्यते ॥ ३१.५

The Earth, the Water, the Fire and the Wind, these are the Bījas of a Yantra, but all these are dependent for their movement and operation only on the Ether—this Ether or the sky, therefore, by virtue of being the substratum i e. the basis and medium of action becomes an element itself. Hence there are five Bījas of a Yantra. Among them the Earth is the main constituent. It is the ground of operation and, therefore, the earthly constituent in a Yantra naturally becomes more pronounced and more in quantity also and having earth as the basis, all the other Bījas namely the water, the fire and the wind are operated upon.

The S. S. then discusses whether Sūta or mercury, which is an indispensible ingredient in some Yantras like Vimāna-Yantra is to be held as one of the primary Bījas along with Earth, Water, etc. or not. The S. S. hints at some earlier writers who have taken Mercury as an independent primary Bīja. In the opinion of the author of the S. S., however, the case is otherwise. He says that mercury is essentially Pārthiva, and it is to be brought under Earth:—

भिन्नः सूतश्च (कै?थै) रुक्तस्ते च सम्यङ् न जानते।
प्रकृत्या पार्थिवः सूत (स्ता?द्य) यात् तत्र क्रिया भवेत् ॥ ३१-६

Now if it is said that mercury being Pārthiva, it is a substance and is also generator of fire, it does not even then lead opposition to Fire, because even though fragrance—Gandha, the essence of Earth and fire are opposite to each other, the dominant quality of the Earth does remain the same.

द्रव्यत्वादग्निजत्वं हि यद्यस्य परिकल्प्यते ॥
तदा विरोधो नैवास्य पावकेनोपपद्यते ।
गन्धाद् बह्नेर्विरोधाच्च स्थिता पार्थिवता बलात् ॥ २१.६॥-८

In order to avoid this controversial point raised regarding the true nature of all these elements both as independent of one another and also as dependent on one another, the author of the S S says:

आत्मैव बीजं सर्वेषां प्रत्येकमपराण्यपि ॥ २१-६

The import of this statement is that the Yantra and its Bījas are an inseparable entity. What is a Bīja in one place becomes a Bījī in another and vice versa? And when the combined conglomeration is in operation, it gives an innumerable variety of the Bīja.

Thus so far the principal elements of the Yantras in their cosmic aspect were taken into consideration, but these themselves which are independent of each other must pre-suppose their own Bījas, otherwise the material production can not take place. The primary Bījas, therefore, in my opinion, are the Nimitta-kāraṇa i. e. the instrumental cause as well as the Upādāna-kāraṇa the efficient cause both. This statement holds good only in relation to the five primary Bījas.

The text further describes the general characteristics of the Yantras (10-15). The following are four general characteristics of the Yantras:—

1. Svayam-vāhaka—Automatic
2. Sakṛtprerya—Requiring propelling only once.
3. Antaritavāhya—Operation of which is concealed i. e. the principle of its action and its motor-mechanism are hidden from public view.
4. Adūravāhya—The apparatus of which is placed quite distant.

The meaning is that these Yantras are operated without any other help, or helped only once or helped in the middle or helped in season or out of season respectively. The first is the best. The most notable characteristics of a Yantra being invisibleness (Alakṣyatā) and wonder (Vicitratva) and they are produced only when it is Svayaṃvāhya. But as the vast majority is the result of the combination of one another, both in their totality and partiality, they give rise to innumerable varieties.

Thus so far we have been busy with the five-fold primary Bījas and the general characteristics of the Yantras. It has also been pointed out that they do not function independently. Naturally all these princi-

pal Bījas for the production of their characteristic objects, the materials (Padārtha) take the other Bījas also in addition to their own, viz. the earthly Bīja, the Pārthiva has:—1. Pārthiva, 2. Āpya, 3. Ānala and 4. Ānila. The similar is the case with other three Bījas—Āpya, Ānala and Ānila. Again while all the elements may be used in a single Yantra, it is to be named after the dominant constituent.

For a *Pārthiva Yantra*, the materials i.e. the secondary Bījas which are mentioned (25-27) are the following :

1. The Earthly.

(a) *Metals*—Tin, iron, copper and silver etc. (Ayastāmram ca tāram ca trapuṣ).

(b) *Other materials*—Wood (Kāṣṭha) hide (Carma) textile (Vastra).

(c) *The parts and principles*—The wheels and the rotation (Cakram bhramarakāstathā) ; the suspenders and the hangings ; the rods, the shafts and the caps ; the tools. "Lambanam lambakāre ca cakrāṇi vividhānyapi" "Urdakah kartaro yaṣṭiś.................................."

(d) *The work*—Measuring, cutting etc. (Samvitpramardana).

2. The Allies.

(a) *Fiery ones*—The application of the fire-Bījas on earthly machines comprise of heating and boiling (Tāpa and Uttejana).

(b) *Watery ones*—Mixing and dissolving, pouring of and filling with water and providing a belt of water—(Dhārā ca jalabhārāśca payaso bhramaṇam tathā).

(c) *Spacial ones*—Height, size, closeness and motion towards a higher plane are special features in a Pārthiva-Yantra. (Ucchrāya, Ādhikya, Nīrandhratā ūrdhvagāmitva).

(d) *Airy ones*—As regards the airy elements in a P. Yantra, they may be applied through bellows, fans, and flaps. (Dṛti, Vījana and Gaja-karṇa).

Similarly in *Jala-Yantras, Āgneya-Yantras and Vāyu-yantras*, the secondary Bījas are enumerated (33-41). But it may be remarked, as all these yantras have to take some shape and possess a body, the Pārthiva is an important constituent. The text says:

निष्क्रिया भूः क्रिया त्वंशे शेषेषु सहजा त्रिषु ।
अतः प्रायेण सा जन्या क्षितावेव प्रयत्नतः ॥ ३१.२३-४
साध्यस्य रूपवशतः सन्निवेशो यतो भवेत् ।
यन्त्राणामाकृतिस्तेन निर्णेतुं नैव शक्यते ॥

For a *jala-yan'ra*, the use of timber, hide and metals like iron etc. form the Pārthiva elements ; other water and its own water, the watery elements ; heating etc. the fiery elements; and the air conditioning like saṅgṛhīta, datta, pūrita and pratinodita etc. form the airy elements.

Again for an Āgneya-yantra the use of earth, metals like copper, iron, gold etc. form the Pārthiva element. Similarly the fire itself and the water as well in their different conditionings form the Fiery and Airy elements respectively. Similar equipments are laid down for a Vāyu-yantra and details may not be attended; because most of it is a common paraphernalia.

With this delineation on the more important and tangible varieties of the secondary Bījas as I have called them, the S.S. is very apt in saying that no hard and fast enumeration of these multiples of Bījas is possible. In some cases a particular Bīja is said to be of greater proportion and in some case otherwise. Hence the same Bīja can be applied in so many degrees resulting in the corresponding varieties of them. Thus there innumerable varieties are possible and who can completely innumerate them ?

The text in this connection brings in a very fundamental principle of physics. The Earth is regarded as Niṣkriya—actionless. The action takes place in the three others on Earth as the earth possesses the quality of Rūpa, the form. Thus if it is said that Earth and other elements have Janya-Janakabhāva—generated and generator—it would not be far from the truth. Any production, the Sādhya, requiring as it does, the form, the Rūpa for its tangible manifestation must take Earth as its secondary substratum, the primary of course, the Ether is always there (cf. S S. 31. 44–45). Hence as the varieties of Yantras are incalculable, so are its forms.

The Qualities of a Yantra and its Functions. The most important qualities of a Yantra in the eyes of the author of the S. S. are *Suśliṣṭatva*—perfection and *Alakṣyattva* invisibleness and these I shall try to explain. But let us first see what the other qualities are:—

(A) **Qualities (Yantra-guṇas).**

1. Proper combination of Bījas in proportion (*Yathāvad-bīja-saṃyoga*).
2. Attribute of being well-knit construction (*Sauśliṣṭya*).
3. Smoothness and fineness of appearance (*Ślakṣṇatā*).
4. Invisibleness or inscrutability (*Alakṣyatā*)

5. Functional efficiency (*Nirvahaṇa*).
6. Lightness *(Laghutva)*.
7. Absence of noise where not so desired *(Śabdahīnatā)*.
8. Loud noise if the production aimed at is sound.
9. Absence of looseness *(Aśaithilya)*.
10. Absence of stiffness *(Agāḍhatā)*.
11. Smooth and unhampered motion in all conveyances.
12. Fulfilling the desired end, i. e. production of the intended effects (in cases where the ware is of the category of curos)-*Yathābhīṣṭā rtha kāritvaṃ*).
13. Following the beating in time, the rhythmic attribute in motion (particularly in entertainment wares). It is called *Laya-tāla-anugāmitva*.
14. Going into action when required-*Iṣṭakālārthadarśitvam*.
15. Resumption of the still state when so required *(Punah-samya ktva-samvṛtih*.
16. Beauty i. e. absence of an uncouth appearance *(Anulvaṇatva)*.
17. Verisimilitude (in the case of bodies intended to represent birds and animals)—*Tādrūpya*.
18. Firmness—*Dārḍhya*
19. Softness—*Masṛṇatā*.
20. Endurance—*Cirakālasahatva*.

These are the twenty qualities spoken of a good machine. Some of them I suppose are not general qualities but special ones bestsuited to a particular machine.

Now, what does the writer mean when he says that invisibility is the best quality? We know that a Yantra, is an unnatural and abnormal object and entity. Naturally, therefore, if its unnaturality and abnormality are visualised by the spectators or onlookers, it loses all its charm. And what are the Yantras descsibed? They are the elephant-machine (Gaja-yantra), wooden bird machine travelling in the sky, wooden Vimāna flying in the air, doorkeeper machine, soldier machine, etc. etc. In a machine like a doorkeeper machine in which the door-keeper is not real and is made of wood, if it looks like a real door-keeper and not an unreal one—this constitutes the Alakṣyatā, imperecepti-bility of the Yantra and its composition—construction there of in every part is so to the point and so proportionate that it becomes a real object worthy of high craftsmanship. Thus the Alakṣyatā here does not mean in the object, but it aims at the subjective perception of its admirers.

The second attribute, the Suśliṣṭatva follows from the first or vice versa. Unless the joinery of the different parts of a machine is in

perfect order and the minutest of its details are well laid the high accomplishment desired can not follow.

B. **Functions (The Karmas).**

(i) Some are operative yantras in which some action or Kriyā is meant to be accomplished. These actions are:—

a. Going (Gamana)—in all directions—upward, downward backward, forward, on either side.

b. Movement i. e. Speeding (Saraṇa)— Ditto.

c. Fall i. e. Crawling— Ditto.

(ii) Some yantras aim at the indication of time, such as clocks and watches (cf. water-clocks and timber-clocks).

(iii) Some yantras aim at the productin of the sound and its qualities or factors as enumerated in the text are the variety, the quality of pleasing or the capacity to terrify, but I surmise that one of their varieties should be the musical instrunments, others are those which produce terrible sounds, others again may be those which produce a queer sound.

A very important notice of this category or of this variety of yantra is one acclaimed of the musical ternary the Vāditra—Gīta (the vocal music—songs), Vādya (the instrumental music) and Nṛtya, the dancing along with their sub-varieties (like Paṭaha, Vaṃśa, Vīṇā, Kāṁsyatāla, Tṛmilā; Karaṭā in musical instruments and Nāṭaka, Tāṇḍava Lāsya, Rājamārga and Deśī both in dance, the Nṛtya and Gīta. Is it a modern Radio?

(iv) Some yantras aim at the Uchrāya. This is in relation to water and there are so many Vāri-yantras and Dhārā-yantras, a notice of which will be made later on.

(v) Some yantras aim at the Rūpa and Sparśe. As regards Rūpa, they are innumerable and in this class for production of whole themes in machinery, the S. S. instances the fight between the Devas and Asuras, the Churning of the Ocean, Nṛsiṁha killing Hiraṇyākṣa, elephant-fights, a mock army, the swing pastimes and pleasures, i. e. the Dolā-kelis, the swing chambers, i. e. the Rati-gṛhas and the different varieties of the assemblies, the sabhās etc.

In a nut-shell, the principal varietes of this category of the functions of the Yantras are those illustrated in movitones, pantomines the machines like aero-planes or the wooden bird-flying-machine, the Dhārā-yantra the swinging machines, the Dolā, servant machine, etc. etc.

The varieties of Yantras.—Three categories of yantras or machines as per my interpretation of the explanatory note on Yāna-mātrikā (one of the sixtyfour kinds of Arts (Catuṣṣaṣṭi-kalās) by Yaśodhara, the celebrated commentator of Vātsyāyana's Kāma-sūtra, have already been indicated as the Yāna-yantra, Udaka-yantra and Saṅgrāma yantra. The descriptions of the yantras in the S.S. warrant us to add the further categories viz the yantras for Vinoda (amusement and recreation) and the domestic yantras. Yantras for amusement by far exceed the number and the importance attached to them in the text. Though there is no systematic classification given in the text, all the yantras described in it can be arranged under five categories.

(i) Yantras for Amusements.

1. Bhūmika-Śayyā-Prasarpaṇa—Here five storeys could be arranged and the bed placed on the ground floor made to go up each higher floor at the end of each watch of the night.

2. Another pleasure-contrivance is the couch called Kṣīrābdhi-śayyā in which the serpent-like bed goes up and down by the soft action of air, like that of the serpants breathing.

3. Putrikā-Nāḍīprabodhana—It is a kind of chronometre. It has a circular device in which, in a broad open vessel, there are three hundred (or thirty?) probably ivory figures (Dantāh) or tooth-like pieces lying flat all along the circumference. The whole thing is revolving. A lady like figure is in the centre. She wakes up one figure or piece for every Nāḍikā.

4. There is yet another chronometre-like object in which there is a rider on a chariot, an elephant or any other animal. The rider on his mount goes round for a fixed time, say a Nāḍikā and the Chronometre strikes at the end of the Nāḍikā.

5. Gola-bhramaṇa yantra—It is an astronomical model. There are needles showing the day and night movements of the heavenly bodies like Sun, etc.

6. A dancing doll, pouring oil in the lamp keeps on circum-ambulating to the beating of tune (a musical instrument).

7. An elephant-machine drinking a great quantity of water.

8. Machine-parrots dancing, singing with the best of tūne (by a musical instrument).

9. Dolls, elephants and horses (mechanical), dancing, singing with the best of tune (by a musical instrument).

10. Sound producing wooden bird machines.
11. Paṭaha, Muraja etc ,—sound producing machines.

The 10th and 11th varieties of this class of Yantras call for a special notice.

A wooden bird is made to create a pleasing sound. In its hollow body is placed a copper contrivance one inch long and one quarter inch high. It is of slender cylindrical shape in two well joined halves with a hole at the centre along which air passes when the bird moves.

The next is a bed-room accessory. The mechanism is similar to one noticed in the above except that here a drum-like piece is placed in halves. As the bird oscillates, a highly pleasing sound is created which reduces the anger of the ladies who are cross.

This is also indicative of the palace life of those days as absorbed in amorous sports with the help of these mechanical contrivances.

(ii) Domestic and Defensive Yantras.

1. Wooden men machines serving as servants.
2. Wooden women machines serving as maid servants.
3. Door-keeper machines—the palace guard with a batton, sword, iron rod spear or other weapon to kill a thief entering at the dead of night.
4. Soldier-machine—to check the undesired fellows from having an entry into the house.
5. Lion-roaring machine to ward off a wicked elephant.

N.B.—In this category of the Yantras, comprising male and female figures designed for various kinds of automatic service, it may be noted that each part of their figures is made and fitted separately, with holes and pins, so that thighs, eyes, neck, hands, wrists, forearms and fingers can act according to the need The material used is mainly wood, but a leather-cover is given to complete the impression of a human being. The movements are managed by the stream of holes, pins and strings attached to rods controlling each limb. Some of the acts performed by these figures are: looking into a mirror, playing a lute, stretching out hands to touch, give pan, sprinkle water and make obeisance.

(iii) Machines for Warfare :

N.B.—These are only referred to and not treated in detail in the text.

1. Cāpa, bows, etc.
2. Śataghnī, etc. (hundred-killer).
3. Uṣṭagrīva etc,—Cam l's neck (the modern cranes ?).

(iv) Conveyance Machines—The Yāna-yantras.

Wooden vimāna machine. (Ambarcārī-vimāna).

N.B.—On this we will see more in the next section.

(v) Water Machines—Vāri-yantras.

1. Pāta-yantra (for the purpose of watering the plants of a garden).
2. Ucchrāya-sampāta-yantra.
3. Pātasamochrāya Yantra.
4. Uchrāya-Yantra—(The modern pipe lines fixed in a tank or well, cf. the modern borings having their proto-type in these).

It may be noted that the S.S. makes two broad classifications of Vāri-yantras e.g. Pleasure-giving (*Krīḍārtha*) and Purposeful (*Kārya-sidhyartha*). The second category is illustrated in the Pāta-yantra and the first in the three following (2.3. and 4). All the above four tabulated Vāri-yantras result in the manipulation of the movement of the water. In the first, it is the downward flow from an overhead tank; in the second, release of water at a higher level from tanks placed at the equal level; in the third, is a contrivance using bored columns for letting down water from a height and then taking it up through columns placed aslant; and lastly in the fourth, water from a well or a canal on the ground is sent up by a device.

N.B.—There are yet two other Yantras falling in this category of Vāri-yantras. The first is the *Wooden-elephant* drinking water placed in a vessel, any amount of it, and neither the intake nor the water taken in is perceivable. The other one is the underground conduit (referred at other places also, cf. Ch. 18 in connection with the planning of cities and palaces) and is based on the Samuchhrāya principle of circulation of water on the same level. Here water is brought to a tank from a distant source.

The further important types of Yantras not so far included in the above classification, though covered by the Vāri-yantra and swing-machines are respectively the *Dhārāgṛha* and the *Dolāgṛha*.

Dhārāgṛha.

Five varieties of Dhārāgṛhas are :—

(i) Dhārāgṛha.
(ii) Pravarṣaṇa.

(iii) Praṇāla.
(iv) Jalamagna and
(v) Nandyāvarta.

Dhārāgṛha is a shower-bower in a garden. It was very popular in medieval times both in the East and West and formed an essential constituent of a vast palace equipment.

Regarding their construction, the S.S., lays down that firstly, they are to be in the proximity of big reservoirs; secondly, they should occupy a site with beautiful surroundings and thirdly, *Pipes* have to be prepared to double and triple the height and other requirements, of the fountains. Again the pipes are said to be able to carry water, free from pores and smooth inside (vss. 119-20).

The text gives an impression that they were the characteristic of the age and were high super-structures with several storeys and the water mechanism attached to them for Jala-krīḍā in connection with the amorous sports of the kings and their queens, the most talked of in the Kāvyas (cf. Bhāravī, Māgha, and other early medieval poets). These Dhārāgṛhas were the most beautiful baths, well furnished, well decorated and with the finest of flooring and plaster and were specimens of pillar architecture. Here not only showers, Uchārya-yantras were laid on, but a good many paintings of elephant-couples, doll-women pouring out showers from their breasts and navels etc. were also to be seen.

The text is full of such beautiful and poetic descriptions, a brief notice is called for.

In the wood work of these structures (i.e., carved pillars, platforms, projections, windows, cornices etc.) fine and fragrant timber, e.g., Devadāru, sandal, Śāla are to be used. The manifold motifs of decorations as already pointed out are:—female-figures, and models of birds, animals like monkeys, manifold forms with gaping mouths, Nāgas and Kinnaras, etc., dancing peacocks, Kalpavṛkṣas, creepers and bowers, cuckoos, bees and swans. The main pipe is to be laid in the centre of the fountain with its exterior made charming. To the top of it is fitted the mechanism for taking up water, scattering and throwing it in a variety of ways. The king's seat is right in the centre and he enjoys the bath and the play of water both. The text is emphatic that these Dhārāgṛhas are not fit to be used by the ordinary run of men. They are only for the kings (S.S. 31-118).

More specific descriptions of the four types of Dhārāgṛhas now follow.

The main speciality of the first, the Pravarṣaṇa, the shower, is that it pours down water. Strong figures of three, four or seven men should be set up, with curved tubes; the whole mechanism is fitted with water which is poured out in different ways by these figures (142-46). "Bhoja calls this shower-house a pseudo-cloud, 'Anukaraṇam ekam jalamucām' (148)—(Somadeva Sūri's commentator gives it the name Kṛtrima-megha-mandira)—a boon in summer and a feast to the eyes. Kālidāsa's reference to the Yantra-dhārā-gṛha has already been noted but when he says in his Meghadūta—1 61 (neṣyanti tvām sura-yuvatayo yantra-dhārā-gṛhatvam), that the celestial damsels on the Himalayas would scratch the cloud with their bangles and convert it into a Yantra-dhārā-gṛha, he seems to know the name of this type called after the cloud."

The next variety called Praṇāla is two-storeyed structure with a single pillar or four, eight or sixteen, built like a Puṣpaka-vimāna with decorative designs. At the centre below is a water-tank with a big lotus, its pericarp fashioned as the seat of the King; alround are female fingures looking at the lotus; when the overhead tank is filled and closed, water is poured by the figures on the King sitting on the lotus seat.

"The third, Jalamagna, is a chamber under water, the idea being that of the submarine abode of Varuṇa or Nāgarāja. A square chamber is built at the bottom of a big and deep water-reservoir, the approach to it being through a subterranean passage. A continuous flow of water above, keeps the chamber completely cool and the whole reservoir is full of mechanical lotuses, fishes, birds, etc. When resting in this chamber alone or in private company, the King can be seen only by selected personal friends and urgent visitors of ranks, like other Princes or Ambassadors. (157-66)."

"The last type, Nandyāvarta, has, in mid-tank, a big flower-like structure; all around the central floral design, in mid-water, are placed low walls in Svastika-designs, providing a sufficient screen as well as a passage, the purpose being to permit playing in the water the game of hide-and-seek (167-72)."

Dolāgṛha.

It is also called Rathadolā and it has five main varieties called:—

1. Vasanta. 2. Madanotsava. 3. Vasantatilaka 4. Vibhramaka and 5. Tripura.

Rathadolā—is a swing or merry-go-round in which people ride in seats and enjoy the pleasure of wheeling round. But in the descrip-

tions that follow, we find the same features and characteristic designs of its ornamentation as noticed in Dhārāgṛhas are a common property of these as well.

In the Vasanta type, the yantra is planted in a dugout, 8 cubits square and 4 cubits deep; both metal and wood-work are mentioned at the base of the yantra, where the rotation mechanism is fitted to a platform. A storey is to be raised on twelve posts and on the whole five machines are to be employed for the rotation, wheel acting upon wheel and the whole moving the storey, designed like a lotus and accommodating the whirling riders (175-87).

In the second, the Madanotsava, there is no dugout or underground construction; the storey on the main post provides only for four seats and a man standing below operates the machine (188-94).

In the third, the Vasantatilaka, two storeys are to be constructed, the second one with much decoration; the mechanism is fitted in the first floor and by the action of wheel upon wheel the top floor revolves (195-200).

The fourth, Vibhramaka, provides for increased accommodation and the variety of motion. At the base here, is a solid platform and a square structure with mechanism; over these is a floor with eight seats, and above these another round of seats; spoked wheels link up the whole erection; the speciality here is that each floor has its own different movements, creating, as the name implies, a complex of circular movements (201-8).

The last, Tripura, increases the tiers by one, justifying its name of three cities in air, each higher floor being of smaller dimension; a large number of connecting links, small wheels and steps leading from one tier to the other are mentioned (209-18).

The Aeroplane—The Vimāna-Yantra—In the notice of the manifold varieties of Yantra, the Vimāna machine was reserved for this last section as it is the most curious of the yantras described in the S.S. The S.S. is the only text which gives some details of its actual construction. Numerous references to this class of Yantra, though found in many places in the literature, the details of its actual construction and the mechanism thereof, are the contribution of this rare treatise on Yantra.

The wooden Vimāna machine flying in the air, wooden bird machine travelling in the sky—these are two yantras which illustrate this class of Vimāna-yantra. The S.S. says:—

लघुदारुमयं महाविहङ्गं दृढसुश्लिष्टतनुं विधाय तस्य।
उदरे रसयन्त्रमादधीत ज्वलनाधारमधोऽस्यचा(ति?ग्नि) पूर्णम्॥
तत्रारूढः पूरुषस्तस्य पक्षद्वन्द्वोच्चालप्रोज्झितेनानिलेन।
सुप्तस्यान्तः पारदस्यास्य शक्त्या चित्रं कुर्वन्नम्बरे याति दूरम्॥
इत्थमेव सुरमन्दिरतुल्यं सञ्चलत्यलघु दारुविमानम्।
आदधीत विधिना चतुरोन्तस्तस्य पारदभृतान् दृढकुम्भान्॥
अयःकपालाहितमन्दवह्निप्रतप्ततत्कुम्भभुवा गुणेन।
व्योम्नो झगित्याभरणत्वमेति सन्तप्तगर्जद्रसराजशक्त्या॥ ३१.९५-९८

"Make a huge bird-like shape with a wing on each side fully carved out of a light wood with a space in the bottom for fitting up a mechanism full of fire and the Pārā in its proper (the middle) place. Now the traveller on, (the switch also on) and with the air produced by the two wings, the Pārā will be in action and with its power so generated, the machine will go a great distance in the sky, giving amusement both to the man on it and those below it—the spectators".

"And just like this, make a heavier wooden aeroplane in imitation of a vimāna-house. In it, place four strong jars full of Pārā and then also place an iron pot full of fire underneath them. Thus heated these jars generate power by means of the Mercury, Rasarāja; the Pārā, and they will make the machine move and by the power of the Rasarāja, Pārā, it will go up in the air and be the ormenament of the sky".

Reading this passage we find only two elements in this mechanism of an aeroplane as described by the Text, the Pārā and the Fire. They are really most essential conductors in any machine performing a similar job. The reader here in the description of these two passages does not find any other mechanism. Apart from these two principal things, nothing else is described for the full comprehension of the mechanism. The mechanism of the whole structure however, must be something of an advanced nature, otherwise the results as indicated in the text could not have been obtained. The unfolding of the secret of machine making is not done. The author for this makes an apology:

पारम्पर्यं कौशलं सोपदेशं शास्त्राभ्यासो वास्तुकर्मोद्यमो धीः।
सामग्रीयं निर्मला यस्य सोऽस्मिंश्चित्राण्येवं वेत्ति यन्त्राणि कर्तुम्॥ ३१.८१

If the art of the construction is not unfolded, it is not for the lack of knowledge, but for the simple reason to keep it a secret, otherwise if made public, these yantras would not bring out the desired, result. Mystery is the key-note of the ancient lore. It was never unfolded to the uninitiated, uncultivated and unprepared and the author himself says:—

यन्त्राणां घटना नोक्ता गुप्त्यर्थं नाज्ञतावशात्॥
तत्र हेतुरयं ज्ञेयो व्यक्ता नैते फलप्रदाः। ३१.७९-८०

Conclusion. Now the question, which naturally arises regarding this portion of the work—the Yantra chapter of the S. S. is: Do we find any connecting link between this work and other works of this type which have treated this theme of machines? No other Śilpa work so far discovered, contains any chapter on the Yantras, though in the broadest sense, as seen before, (vide the Scope of the Vāstuśāstra) the Indian Vāstu-śāstra must include Yantras also in its scope. The paucity of the material however, stands in the way of arriving at any definite conclusions.

By the time of the eleventh century, the time of Bhoja, the science of machines in India was in a very degenerated condition. Whatever Yantric knowledge was there, it was handed down in a distorted and uncultivated state. Scienctific knowledge was never a matter of popular use. It never affected the life of the people as a whole. Only the kings could use the aeroplanes. These aeroplanes were conveyances either fit for celestial beings or kings and sovereigns like Rama Chandra. Puṣpaka-vimāna could be used only by a Rama and and not by an ordinary citizen of Ayodhyā. Naturally therefore, mechanical craftsmanship, if there was any in this period of medieval India, was more or less a thing of court-life—a paraphernalia of enjoyment to the kings and queens and the courtiers. Hence all the varieties of the yantras which have been described here are fit to be the ornaments of the then court life or a thing of exhibition only in fairs and other such places where the masses used to assemble. Even today in fairs in India some such things of indigenous character but reminiscent of the past are exhibited in such gatherings, and money is got owing to the sale of tickets, etc.

I have already hinted at a very significant point in relation to the mysterious art of construction of these yantras, not to be unfolded and if it is unfolded, it does not bear fruits. Again I have also pointed out the decadance of the art as reflected in the exposition of the yantras in this book. The author of this work points out at a number of places that this mysterious lore, as it were, has been revived by his own imagination and intellect. He does refer to the ancient masters (31. 6) of the art. He also speaks of those as having been seen and described on first hand knowledge of them.

He however, offers an excuse of not unfolding the secret of the construction of these yantras simply for the reason that they are likely to lose their merit. The usual equipment of any art, the knowledge of the practical experience, etc. must be there, and no one can deny their importance, but it is simply ridiculous to say that if the secret of art is unfolded, it loses its merit.

I may however, conclude with Dr. V. Raghavan (vide Yantras or Mechanical Contrivances in Ancient India p. 31):

"The tradition pertaining to this lore was, however, neglected and lost. The vogue that these mechanical contrivances had over a sufficiently long period was indeed enough to foster the development and spread of mechanical technology on a national scale; but it was just like the civilization of this country not to have taken to it on such a scale. The reason is not far to seek: the religious and spiritual preoccupation was such that machines, which in other countries ushered in a civilisation that increasingly became materialistic in outlook were useful in this country only to reinforce the idea of God and Spirit.

If material yantras did not take root or multiply, spiritual yantras, which took *one to still* higher *regions,* developed and multiplied on a vast scale. And even writers who actually dealt with the yantras, like Somadeva and Bhoja, saw in the machine operated by an agent an appropriate analogy for the mundane body and senses presided over by the Soul, and for the wonderful mechanism of the universe, with its constituent elements and planetary systems, requiring a divine master to keep it in constant revolution.

जडानां स्पन्दने हेतुं तेषां चेतनमेककम् ।
इन्द्रियाणामिवात्मानमधिष्ठातृतया स्थितम् ॥
भ्राम्यद्दिनेशशशिमण्डलचक्रशस्तमेतज्जगत्त्रितययन्त्रमलक्ष्यमध्यम् ।
भूतानि बीजमखिलान्यपि संप्रकल्प्य यः सन्ततं भ्रमयति स्मरजित्सवोऽव्यात् ॥

And, as early as the Gītā, the machine became an apt simile for man being but a tool in the hands of the Almighty that sits in man's heart and by His mystic power makes man not only move but also delude himself into the notion of his being a free or competent agent:

ईश्वरः सर्वभूतानां हृद्देशेऽर्जुन तिष्ठति ।
भ्रामयन् सर्वभूतानि यन्त्रारूढानि मायया ॥

CHAPTER IV

STATE OR PUBLIC BUILDINGS

The cognate structures

Nyāya-śālā—Among the cognate buildings falling in the domain of Palace-architecture Courts of Justice, the Nyāya-śālās occupy the first and foremost place. These were attached to the seats of Government, Central or Provincial and theses eats were really the royal palaces themselves. Side by side the Nyāyaśālā was the sabhā, a notice of which has already been taken.

According to Viśvakarma-vāstu-śāstra as studied by K. Vasudeva Shastri—vide the Introduction: "The court-house is looked upon as the embodiment of all deities and of all powers and the promoter of general prosperity. It is to be presided over by the king, possessed of all noble qualities and shrewdness and stability of judgment; and the minister and the preceptor also take part in the proceedings. The building must have an even surface and it must have all the various adjuncts and must also have the principal deities installed in it.

It must have seats for advocates and for state-guests. It may be a hall with walls and doorways or it may be like a hall of audience and the form may be either a square or circular. The mofussil court may have a treasury attached to it and it must have special seats provided for the occasional visits of the emperor, the heir apparent and neighbouring rulers. The metropolitan court-house shall be 12 daṇḍas in dimension and the hall in front and subsidiary halls may have half the breadth. Its forms may also be like those of moffusil court, with this difference that the metropolitan court may generally have three floors. The basement shall be as grand as possible and the steps leading to the dais about 32 in number. The dais and the hall shall have ornamented pillars so arranged as to enhance the grandeur and solemnity of the court of justice. The building shall have a canopy and the arrangement of pillars may be in one of the forms consisting of 48, 32 or 24 detailed in the text. The frontage of the court-house must have an ornamented arch (a Toraṇa)."

It may be remarked that in the ancient courts of justice prominent structural grandeur used to go to the placing of thrones on the proper place, the text describes seven types of such thrones—Siṁhāsana, Bhadrāsana, Kūrmāsana, Vīrāsana, Mānāsana, Vijayāsana and Paryaṅ-

kāsana which really are more suitable to presiding deities rather than to the presiding judges.

Court-house where Justice was administered by an assembly of learned lawyers was really a sabhā. "These sabhās" according to the text "are of three kinds: Sādhāraṇa Sabhā, Mukhya Sabhā and Pradhāna Sabhā. In the Sādhāraṇa Sabhā a deity is supposed to preside over the assembly. In the Mukhya sabhā a portrait of the king is installed at the presidential seat. In the third, the Pradhāna Sabhā, the king personally presides over it. In other words, in villages, the idol of the patron deity of the villagers adorns the presidential seat. In towns the portrait of the king is used and in the capital the king himself presides."

Pustaka śālā:—The next important state building is the Library and the same text has elaborate expatiations on the construction of libraries, "They shall consist of a number of enclosures with a central platform for Vedic works and there shall be a seat for the preceptor. The library may have a number of storeys and a reading hall shall be attached to the library". There was a good number of Āvaraṇas and it is laid down that in the first Āvaraṇa (i e. the storey) the Vedic works are to be apportioned; in the second the Smṛtis and in the third the goddess Vāṇī, Hayamukha, Śambhu, Umā along with their parivāras may be installed.

Vidyābhavana:—The third, more useful state-building was the Vidyābhavana or a University or college, the building of which, as prescribed by this text shall have a very big central hall with front and back halls. On either side of the central hall shall be built wings with vacant spaces. There may be a number of storeys also and there shall be separate halls for discussion and for examination. The structure of the building must be grand and imposing. It shall be beautified by turrets and other ornamental structures.

Nāṭaka-saṅgīta-śālā:—the next important state building to provide for recreation and amusement, so necessary in the life of the sabhyas the cultured people was this pavilion.

We know there is a very detailed and exhaustive treatment of the theatre in Bharata's Nāṭyaśāstra. Avoiding the other details, this ancient text of Bharata's Nāṭya-śāstra gives a very systematic account of the stage which was divided into the three parts called Raṅga-pīṭha, Raṅga-śīrṣa and Nepathya. Here in this text (V. V. S.) it is laid down that the theatre and the concert halls are to be built by the side

of each other. It contemplates three kinds of buildings—Nāṭaka-śālā, Nāṭya-śālā and Gīti-śālā and these buildings are divided into three parts—Daiva, Gāndharva and Mānuṣa. In the Daiva portion which is generally at the hind part of the building, the deities to be worshipped as a preliminary to drama, dance or concert ar. said to be installed. The stage proper is the Gāndharva portion where music and dance are to be performed. The green room, which is behind, is to be divided into two portions, one reserved for male actors and the other for female actors.

Mārga-śālā—The rest houses really finds a very glorious and unique description in the newly discovered text of viśvakarma-Vāstu-śāstra. "Rest nouses and armed out-posts shall generally be built for every krośa. They are imperative in roads in forest areas. The rest house may be a pillared hall with walled enclosures, platforms for takir g rest and cooking rooms. These rest-houses shall be beautified by paintings of scenes from the Epics and Purāṇas The frontage shall be ornamented by turrets. By the way it has to be observed that no mansion or other construction for public use is mentioned in our Shilpa Śāstra without ornamentation by turrets, kalaśas and toraṇas the arches etc. By the side of the rest house shall be planted fruit-bearing and other trees and head-load rests. Ponds and wells, cart stands and sheds for bulls, horses and elephants with supply of provisions shall be arranged."

This is only a brief enumeration of the state-buildings of flourishing capital town or a large metropolis in ancient and medieval India. Tuere are so many other public buildings owned by the state, constructed by the ruling kings, like cow-sheds, the Go-śālā, the park for the deer and other pets, the Mṛga-śālā, and the catvaras—the resting places etc. etc. Among them the Mṛga-śālā, it may be brought home to the readers, used to be enclosed by fences of iron and provided with reserviors of water and grounds for ladies of the palace and nobility to sport themselves with the pets.

In the end two topics need to be dwelt at some length. These are the entrance gates to the towns and the water-reservoirs. The former topic is the subject matter of town-planning where under fortification some remarks are already made on 'Pratolī' structure which was a component part of fortification. According to the Aparājita-pṛcchā however these pratolī-structures have been made more conspicuous by their varieties and sub-varie.ies like Eka-polī to pañca-polī which need not be taken in greater details here for the want of space. They are described alright in the Vāstu lakṣaṇa and the more curious readers may read them there. All these pratolī structures, it may be again remarked as per my own thesis, are really the imitating struc-

tures of Gopura-architecture in temples. Towns and temples of old used to be laid out in some kind of allied and complementary beautification of their own. These were to all intents and purposes, the ornamental structures. These pratolīs, accordingly, were the beauty of the palace-gates and the town-gates of old especially in the Nāgara or the Northern school of architecture.

Now coming to the latter topic, the water reservoirs, they are a special treatment in the Aparājita-pṛcchā and let us have a bird's eye-view on these different and manifold varieties of the water-reservoirs, the Kūpa, the Vāpī and the Taḍāga. Without going into details they are being tabulated as here under :—

10 Varieties of Kūpa :

1. Śrīmukha	5. Manohara	8. Jaya
2. Vijaya	6. Cūḍāmaṇi	9. Nanda
3. Prānta	7. Digbhadra	10. Śaṅkara
4 Dundubhi		

N.B.—These varieties vary with their respective dimensions i.e. Śrīmukha is said to be laid out in four hastas and the Śaṅkara (the last variety) to be laid out in thirteen hastas. All these should be laid circular. The wells having inferior dimensions are really not Kūpas, but Kūpikās.

4 Types of Vāpīs :

1. Nandī	Eka-vaktrā	and	tri-kūṭā
2. Bhadrā	Dvivaktrā	,,	ṣaṭ-kūṭā
3. Jayā	Trivaktrā	,,	nava-kūṭā
4 Vijayā	Caturvaktrā	,,	dvādaśa-kūṭā

N.B.—Side by side with Vāpīs, Kuṇḍas are also described which are really religious structures, and the text has given a vivid description of these where there are so many side structures as well as provisions for the enshrinement and installations of a host of deities and therefore they are needless to be dwelt at greater length, only a brief mention of these may be made.

4 Kuṇḍas :

Bhadraka, Subhadraka, Nanda and Parigha. Lastly:—

6 Types of Taḍāgas :—

1. Sara	like ardha-candra
2. Mahāsara	circular
3. Bhadraka	square
4. Subhadra	with excessive bhadrās
5. Parigha	Bakaikasthala
6. Yugma-parigha	Bakas abounding on both the banks.

PART V

TEMPLE-ARCHITECTURE

(along with an outline history of Hindu Temple in all its styles of canons and monuments of art)

Introductory.

The main function of the science of architecture is to provide norms for the buildings. The two broad classes of buildings, residential and religious—Manavāvāsa and Devāvāsa according to the genius of this work have already been indicated. The religious buildings in India centre round a shrine or a temple or a chapel, or a monastery or a pavilion or a shed or the like—the chief among which is the Hindu Temple—the place of worship. Many broad classifications of architecture have been advanced by scholars, but in India the devotional architecture had been the most favourite architectural acitivity where the Indian genius of the architectural skill and craftsmanship culminated into the profoundest of expression both from the point of view of art and culture as well. The pre-eminence given to devotional architecture in India is characteristic of Indian culture. After all, according to Lethaby, (cf. Architecture page 7 H.U.L.): "Architetture is the martix of civilization". The finest trait of human civilisation has been the manifestation of the artistic evolution in its different climes and times. Sri P. Brown is very apt in his remarks—"In each of the major historical developments of architecture, there is one basic principle underlying in its conception, and one which is supremely distinctive. With the Greeks this was refined perfection; Roman buildings are remarkable for their scientific construction; French Gothic reveals a condition of passionate energy, while Italians Renaissance reflects the scholarship of its time. In the same way the outstanding quality of the architecture of India is its spiritual content. It is evident that the fundamental purpose of the building art was to represent in concrete form the prevailing religious consciousness of the people. It is mind, materalised in terms of rock, bricks or stone"—(Indian Architecture p. 1).

Again in the words of Dr. Coomarswamy—vide Mr. Smith 'A History of Fine Art in India and Ceylone': (page 5): "All that India can offer to the world proceeds from her philosophy—a mental concentration (Yoga) on the part of the artist and the enactment of a certain amount of ritual being postulated as the source of spirituality of Indian Art". Temples and tīrthas are indispensible companions in the life journey of the mass of humanity (though originally only for those who were uninitiated to the highest knowledge—the transcendental knowledge, the Ajñyas, but later on no such distinction persisted) in India. The institution of pilgrimage to the sacred places

of worship, the temple and tīrthas, was an outcome of the reoriented Hindu Dharma of the Purāṇas and Āgamas to which I have drawn attention several times. Dr. Kramrisch (vide H. T. p. 6) is simply relating the truth: "Temples are built where Tīrthas are; their towering shapes to the last point of their height teem with forms which have the urge and fullness of Indian nature; step by step, level by level they lead the eye and mind of the devotee from this world to the world above. The temples rise from a broad base: differently built according to specific types, they have their variation in time and place and their shapes were elaborated in many a school. As they are today in Southern India, their high super-structures ascend in pyramidal form, while in Northern India they fling their curvilinear faces towards a meeting point above the sanctuary." From the point of view of architecture, the temple architecture, does not offer us a fascinating story like the one we had in a previous part of this Study (cf. Part III—the Origin of the First House on Earth). Temple architecture in India is symbolic of the spiritual outlook of its people. It is the principal, visible and material record of the invisible and spiritual evolution of our civilisation. It is a concrete manifestation, not only of the aspirations of the people, but also a way of life. It was equally true of those who built it—the long line of the Sthapatis and Sthāpakas. To every one it was a religious dedication to evolve out a spiritual way of life. Numerous noble monuments of this class of devotional architecture are a testimony of our rich architectural heritage, the parallel of which can not be found in other countries.

The temple-architecture as portrayed in the pages of this most celebrated work represents the high strides, the temple architecture had made by the eleventh century in India. The very developed denotation and connotation of the word Prāsāda, the Hindu temple, its various origins from the different ancient institutions af worship and sacrifice; its manifold styles representing the local and regional centres of art and their exuberance of building activities, together with the temple types having so many ramifications betokening the high water mark, of the evolution of the temple architecture together with its planning and the accessory buildings—Maṇḍapas, Jagatīs, Prākāras etc. etc.—all these will be dealt with as side aids in our evaluation of the temple architecture by the time of Raja Bhoja. Needless to be specific about the contents of the chapters forming this Part. This is only a broad indication.

CHAPTER I

THE DENOTATION AND THE CONNOTATION OF THE TERM 'PRĀSĀDA'—THE HINDU TEMPLE.

The words denoting devotional places are numerous and abound in literature. The words for temple which are more current and are generally employed are :—

Devagṛha	Devatāgāra	Kīrtana
Devāgāra	Mandira	Harmya
Devatāyatana	Bhavana	Vihāra
Devālaya	Sthāna	Caitya
Devakula	Veśma	Kṣetra.

—the references to which in the particular works or inscriptions have been ably worked out by Dr. Kramrisch, in her Hindu Temple (page 138). Perhaps this list has got a hoary tradition behind it, and the tradition must not die. It is perhaps with this outlook of Indian culture that the authar of the S.S., though denoting temple, the house of God only by a single term Prāsāda and Prāsāda alone, has in its 18th Chapter, "On the Nagarādi-Sañjñā"—glcssary on the towns and houses, etc , has kept this tradition afloat and says :—

Devadhiṣṇya-surasthānam caityamarcā gṛham ca tat
Devatāyatanam prāhurvibudhāgārmityapi" (18-57).

These names with the exception of Arcāgṛha and Caitya designate a seat, an establishment, a residence and a house of God ; whereas Arcāgṛha is the house of the consecreted image, and Caitya is a sacred monument which is piled up like the Vedic Agni (etymologically Caitya is derived from Citi चितेरिदं चैत्यम्). These synonyms, as I will show later on (vide Chapter on the origin of the Prāsāda), throw some light on the multiple origin of the Hindu Temple. The names denoting a devotional place are ancient names and practically all the manuals on architecture have kept up this tradition of old. The interesting lists of Mayamata and Mānasāra, the more popular ancient treatises on the Vāstuśāstra together with a list as given in the Samarāṅgaṇa of the names denoting residence in general, would not be out of place here, as most of the names enumerated in the above list for the residence of God are common to the names found

in the following list :—

	Mayamata (XIX. 10-12)	*Mānasāra* (XIX. 108-12)	*Samarāṅgaṇa* (XVIII. 8-9).
1.	Vimāna	Vimāna	Āvāsa
2.	Bhavana	Samalayam	Sadana
3.	Harmya	Harmya	Sadma
4.	Saūdha	Ālaya	Niketa
5.	Dhāma	Ādhiṣṇyaka	Mandira
6.	Niketana	Prāsāda	Sansthāna
7.	Prāsāda	Bhavana	Nidhāna
8.	Sadanam	Kṣetra	Dhiṣṇya
9.	Sadma	Mandira	Bhavana
10.	Geha	Āyatana	Vasati
11.	Āvāsaka	Veśma	Kṣaya
12.	Gṛha	Gṛha	Āgāra
13.	Ālaya	Āvāsa	Saṃśraya
14.	Nilaya	Kṣaya	Nīḍa
15.	Vāsa	Dhāma	Geha
16.	Āspada	Vāsa	Śaraṇa
17.	Vāstu	Geha	Ālaya
18.	Vāstuka	Āgāra	Nilaya
19.	Kṣetra	Sadana	Layana
20.	Āyatana	Vasita	Veśma
21.	Veśma	Nilaya	Gṛha
22.	Mandira	Tala	Oka
23.	Dhiṣṇyaka	Koṣṭha	Pratiśraya
24.	Pada	Sthāna	
25.	Laya		
26.	Kṣaya		
27.	Āgāra		
28.	Udavasita and		
29.	Sthāna.		

It may be noted here that but for 'Tala' and 'Koṣṭha' the twenty four synonyms of the Mānasāra are common to those of the Mayamata. The names of residence such as 'Saṃśraya', 'Nidhānam'; 'Nīḍam', 'Śāraṇam', 'Oka', and 'Pratiśraya' are found in Samarāṅgaṇa only. Again as I have already indicated elsewhere (Part III) that these synonyms of house, especially those given in the list of the Samarāṅgaṇa (cf. Nīḍam, Śaraṇam etc., and Bhavan, Mandira, etc., together with Nilaya etc,) may be taken as suggestive of the progress

of the human civilisation in relation to its habitation from structures like bird's nests to the ostentatious houses like Mandira, a stone mansion together with its spiritual advancement from Naturalism to the Meditation-life of cave-living (cf. Nilaya or Layana type of cave-temple, Part V).

Vimāna. Thus this is the story of these general names having wide currency in the literature, for a house of man and that of God, a temple or shrine. But when we come to the technical names as given to the dwelling of God from an architectural point of view, the common word denoting the temple is Vimāna in practically all the manuals on architecture e. g. in the Mānasāra buildings of one to twelve storeys are called Vimānas (cf. Ch. XVIII). A more frequent name for a high edifice in the Epics—Rāmāyaṇa and Mahābhārata, is Vimāna and their commentaries on the anthority of Nighaṇṭu, and Medinī (N. 121) the ancient lexicons, describe it as seven-storeyed mansion. Abhidhānacintāmaṇi (89, 190; 3, 417), Halāyudha (1, 83 etc.) the lexicons of repute are also unanimous on this denotation of the word Vimāna. But my own view is that the word Vimāna is only one of the two most generally accepted names which designate a temple. The other word is Prāsāda, a critical exposition and estimation of which will follow soon in the latter part of this chapter. First let us see what is the implication attached to the word, Vimāna. There is a great metaphysical or more correctly a cosmological truth embedded in this word. The Vāyu-purāṇa (IV. 30-31) says:—"To measure (mā) is to make a thing by giving shape to it and existence". The denotation and connotation of the word Māyā and the principle underlying it expound the same truth. 'Māyā or manifestation means division of the hitherto undivided principle; on itself it performs this operation and as Puruṣa it henceforth thinks of itself as composed of parts." And according to Śvetāśvtara Upaniṣad (III.19). and Viṣṇu Purāṇa (Ch. 1. 1, 2) Puruṣa who is the first form of the supreme Brahman, thus bears the measuring rod. He is the great architect of the Universe and in this capacity his name is Viśvakarman, The Mānasāra and the S. S. have hinted at this truth in their respective ways (Māndsāra II. 2-5; S. S. the very first verse). Vimāna, therefore, measured in its parts, is the form of God, which is this Universe, the macrocosm, and the temple the microcosm. To measure, as the S. S. has aptly said ('यच्च येन भवेद् द्रव्यं मेयं वदपि कीर्त्यते'—स० सू० ६-२८), is to create—there is an identity between the measure and the object. Whatever is produced is called *Meya*. Dr. Kramrisch has very beautifully brought out the significance of the word denoting and

connoting temple both in its architectural and spiritul implications—"The temple as Vimāna, proportionately measured throughout, is the house and body of God. By temple is understood the main shrine only in which is contained the Garbhagṛha, the womb and house of the Embryo, the small, innermost sanctuary with its generally square plan. All other buildings within the sacred precinct, are accessory and subservient to it: the hall, Maṇḍapa, in front of the entrance, is itself, as in Orissa, a semi-separate structure to which may be added several more such buildings preparing the devotee for the entry into the temple. These accessory buildings conform in each case with the proportionate measure of the temple, the Vimāna; the Maṇḍapa generally coalesces with the Vimāna".

Prāsāda. Now in regard to Prāsāda, the first thing to note is that the Vimānas were the precursors of Prāsādas, and this fact, has been very well brought out though mythologically, by the following lines of the S. S. (vide 49. 2. 6):

"In the hoary past, Brahmā, the great Creator, created five Vimānas for gods. They were for travelling in the air, beautiful to look at, colossal in shape, made of gold and studded with gems. Their names were Vairāja, Kailāśa, Puṣpaka, Maṇika and Triviṣṭapa. They were to be used by Brahmā himself, the trident-holder Śiva, the god of wealth, Kubera, the noose-holder Varuṇa and the god of gods, the lord Viṣṇu respectively. Like these he created so many other Vimānas meant for the use of other gods such as Sūrya, etc.—having of course the shapes etc. in the likeness with those of the deities using them. It is from the self-same five shapes of Vimānas that later on, Brahmā created the Prāsādas. They are to be built in towns and are made of stone or burnt bricks." Vimāna, as we shall see just now is the prototype of the the Prāsāda, according to the S. S.

The popular etymology for the meaning of the word Prāsāda is accepted by the author of the Śilparatnam (cf. XVI. I) and he says:—

"Prāsādas please by their beauty, the minds of gods and men." Its more recondile but essential meaning, I shall explain in the end on the basis of I. P. For the present a bird's eye view of the antiquity of this word would be interesting. Prāsāda as a sacred monument or sacred building is referred to in ancient texts and inscriptons. Ś. Ś. S. mentions Prāsādas on all sides of Āhavanīya Fire (XVI. 18. 13-17); Patañjali's Mahābhāṣya also mentions Prāsādas of Dhanapati, Rāma and Keśava. This latter testimony dates as far back as 3rd Centry B. C. The use of Prāsāda in Rāmāyaṇa and

Mahābhārata is very frequent and the reader is referred to Dr P. K. Acharya's Dictonary of Hindu Architecture. For the further references to Prāsāda as found in the inscriptions the reader is referred to Encyclopaedia of Hindu Architecture (See under Prāsāda).

Apart from these references, a very interesting reference to the denotation of the word Prāsāda is to be found in Mayamata (vide II. 6-7) which enumerates the following buildings as Prāsādas:—

Sabhā, Śālā, Prapā, Raṅgamaṇḍapa and Mandira. They are parts of the whole establishment of a south-Indian Temple. The denotation of the Prāsāda is extended here from the temple itself to the various halls and sheds attached to it.

Now resuming our lost thread, it can be said that the temple is the seat and dwelling of God. The name Prāsāda has the widest application. The word is unique in this respect that it does not mean a house or something that is built like Devāgāra or Vimāna respectively. "It denotes a settling down (Pra-sad) and a seat made of that which has settled down and aqcuired concrete form, the form of a dwelling, a residence, the seat of God" (vide H. T. p. 135-36).

The word "Prāsāda" has been used to denote temple througout the work. This word "Prāsāda" if we just take into our account the different literary, epigraphic and other sources, we find, has been used in different senses. The reader is referred to Dr. Acharya's monumental Encyclopaedia of Hindu Architecture. There the learned Doctor has gathered a large number of quotations and references in which this word has been used, denoting different species of architecture from the platform to the palace.

Going through the representative texts like the S. S. and the Īśānaśivagurudeva-paddhati, belonging to the Nāgara and Drāvida schools respectively, it may be remarked that the term 'Prāsāda' had acquired a definite denotation to denote and connote the Hindu Temple.

By the tenth and eleventh century A. D. the time of the Īśāna. and the S. S., there was not only a definite denotation of the word 'Prāsāda', but also a very high conception of the 'Prāsāda' having also a corresponding architectural development as is evident from so many accessory structures like the Maṇḍapas and the Jagatīs round the central shrine, the Prāsāda.

Thus our Śilpa-śāstras do not consider Prāsāda, the Hindu Temple as a congregational structure alone, but the house of the Spirit.

Temple is the house of God. God is the Spirit immanent in the Universe and the temple is His abode. The S. S. has put this very truth in its own way having the symbolism of the Liṅga and the Pīṭhikā:—

प्रासादं लिङ्गमित्याहु (ल्गि?) लयनाद् यतः ।
ततस्तदाधारतया जगती पीठिका मता ॥ ६८. ३-४

The Īśāna. too expounds the same truth:—

प्रासादं यच्छिवशक्त्यात्मकं तच्छक्त्यन्तैः स्याद् वसुधाद्यैस्तु तत्वैः ।
शैवी मूर्तिः खलु देवालयाख्येत्यस्माद् ध्येया प्रथमं चाभिपूज्या ॥ III.XII.16

Moreover God and His temple correspond to soul and human body. The temple building ceremonials and rituals are akin to our jātaka-saṃskāras.

Thus, Prāsāda, the Hindu Temple from this Brahmanic conception is the visible outer casement (body) of the Invisible Brahma (gods and goddesses only an emblem of this Supreme Being). It is according to this fundamental conception that in temple architecture, the various parts of a temple are designated by names which correspond to the names of the various parts of the human body, e. g.

1.	Pādukā	9.	Parva	17.	Mūrdhan
2.	Pada	10.	Gala	18.	Mastaka
3.	Caraṇa	11.	Grīvā	19.	Mukha
4.	Aṅghṛ	12.	Kandhara	20.	Vaktra
5.	Jaṅghā	13.	Kaṇṭha	21.	Kūṭa
6.	ūru	14.	Śikhara	22.	Karṇa
7.	Kaṭi	15.	Śiras	23.	Nāsikā
8.	Kukṣi	16.	Śīrṣa	24.	Śikhā etc.

N. B. We may take up any temple type described in the S. S. and we find the usage of these terms as manifold parts of the temple-structure and super-structure both.

It may be remarked that these terms should not be viewed objectively, they are used in a subjective sense to suggest the organic unity in architecture and to make temple breath life at every point. The architectural canons like the Chandas (the Rythm) and the avoidance of Marma-vedha etc. so much emphasised in the texts, also point to the same truth.

Again lavish display of decoration and ornamentation on the outer parts of the body of the temple and their conspicuous absence in its interior, the Garbhagṛha, also corrobarate the same fact. This

connotation of the word Prāsāda is very beautifully brought out in the contents of Agnipurāṇa (61. 19. 27) and Hayaśīrṣa Pañcarātra in the following lines corroborating the Organic Theory propounded above:—

प्रासादं वासुदेवस्य मूर्तिभेदं निबोध मे।
धारनाद्धरणीम् विद्धि आकाशं शुषिरात्मकम्॥
तेजस्तत् पावकं विद्धि वायुं स्पर्शगतं तथा।
पाषाणादिष्वेव जलं पार्थिवं पृथिवीगुणम्॥
प्रतिशब्दोद्भवं शब्दं स्पर्शं स्यात् कर्कशादिकम्।
शुक्लादिकं भवेद्रूपं रसमन्नादिदर्शनम्॥
धूपादिगन्धं गन्धन्तु वाग्भेर्य्यादिषु संस्थिता।
शुकनासाश्रिता नासा बाहू तद्रथकौ स्मृतौ॥
शिरस्त्वण्डं निगदितं कलसं मूर्द्धजं स्मृतम्।
कण्ठं कण्ठमिति ज्ञेयं स्कन्धं वेदी निगद्यते॥
पायुपस्थे प्रणाले तु त्वक् सुधा परिकीर्त्तिता।
मुखं द्वारं भवेदस्य प्रतिमा जीव उच्यते॥
तच्छक्तिं पिण्डिकाम् विद्धि प्रकृतिञ्च तदाकृतिम्।
निश्चलत्वञ्च गर्भोऽस्या अधिष्ठाता तु केशवः॥
एवमेष हरिः साक्षाद् प्रासादत्वेन संस्थितः।
जङ्घा त्वस्य शिवो ज्ञेयः स्कन्धे धाता व्यवस्थितः॥
ऊर्ध्वभागे स्थितो विष्णुरेवं तस्य स्थितस्य हि॥ Agni. 61. 19-27
सर्वतत्वमयी यस्मात् प्रासादो भास्करी तनुः।
तद् यथावस्थितं कथयामि निबोधत।
पायूपस्थौ प्रणालौ द्वौ नेत्रौ ज्ञेयो गवाक्षकौ।
सुधा भुम्न (?...) पिनीज्ञेया स (व) क्चो मञ्जरीकोर्द्धवः॥
जङ्घा जङ्घा तु विज्ञेया वरण्डी वसना मता।
शुकाग्रातु भवेन्नासा सूत्राणि विशेषतः॥
गर्भः स्थिरत्वे विज्ञेयो मुखं द्वारं प्रकीर्तितं।
कपाटौ दृपुपुटौ ज्ञेयौ प्रतिमा जीवमुच्यते॥
स्कन्धस्तु वेदी गदिता कण्ठं कण्ठमिहोच्यते।
शिरोमालास्थितं ज्ञेयं ....चून संस्थितं।
एवमेष रविः साक्षाद् प्रासादस्थेन संस्थितः।
जगती पिण्डिका ज्ञेया प्रासादो भास्करस्मृतः। Haya S.P. 39

Similarly the Śilparatna also supports this sagarious truth:—

"प्रसादं पुरुषं मत्वा पूजयेन्मन्त्रवित्तमः"
"प्रपदं पादकं विद्याच्छिखा स्तूपीति कथ्यते।

Another point which I want to bring to the notice of the reader is that some of the statements in the S. S. give the impression that the Dravidian school, the Maya school was earlier than the Nāgara school, the school founded by Viśvakarmā, the heavenly Architect himself. Naturally, therefore, the Dravidian art supplied the model to Indian Architecture. It was precursor of the Nāgara style of Architecture.

1. The testimony of the S. S. may be deduced from the following passages:—

विमानमथ वक्ष्यामः प्रासादं शम्भुवल्लभम् ।
स्वर्गपातालमर्त्यानां त्रयाणामपि भूषणम् ॥
सर्वेषां गृहवास्तूनां प्रासादानां च सर्वतः ।
प्रासादो मूलभूतोऽयं तथाच परिकर्मणाम् ॥ स० सू० ४९.१–२
पुरा ब्रह्मासृजत् पञ्च विमानान्यसुरद्विषाम् ।
वियद्वर्त्मविचारीणि श्रीमन्ति च महान्ति च ॥
तानि वैराजकैलासे पुष्पकं मणिकाभिधम् ।
हैमानि मणिचित्राणि पञ्चमं च त्रिविष्टपम् ॥
आत्मनः शूलहस्तस्य धनाध्यक्षस्य पाशिनः ।
सुरेशिने च विश्वेशो विमानानि यथाक्रमम् ॥
बहून्यन्यानि चैवं स सूर्यादीनामकल्पयत् ।
विशेषाय यथोक्तैस्तान्याकारैः प्रतिदैवतम् ॥
प्रासादांश्च तदाकारान् शिलापक्वेष्टकादिभिः ।
नगराणामलङ्कारहेतवे समकल्पयत् ॥
वैराजं चतुरश्रं स्याद् वृत्तं कैलाससंज्ञितम् ।
चतुरश्रायताकारं विमानं पुष्पकं भवेत् ॥
वृत्तायतं च मणिकमष्टाश्रि स्यात् त्रिविष्टपम् ।
तद्भेदान् श्रीमतोऽन्यांश्च विविधानसृजत् प्रभुः ॥ ४९.२–४
अथातः सम्प्रवक्ष्यामि प्रासादान् शिखरान्वितान् ।
रुचकादींश्चतुःषष्टिं नामलक्षणतः क्रमात् ॥
पूर्वं यानि विमानानि पञ्चोक्तान्यभवंस्ततः ।
तदाकारभृतः सर्वे प्रासादाः पञ्चविंशतिः ॥ ५६.१–२

The sum and substance of these passages is that the Vimāna building was the prototype of the Prāsāda. The five shapes of Vimānas (Dravidian temples) were the models after which the Prāsādas were created. Dr. Tarapada Bhattacharya, however, straightway condemns this most authentic tradition. He says (cf. Canons of Vastu-vidyā 271) "This tradition must have originated in a late

period due to the confusion in the two meanings of Vimāna on the one hand, and the meaning of the words Prāsāda and Vimāna on the other. o reliance can, therefore, be placed on these later writers on Vāstu who could not distinguish between a Prāsāda, Harmya, Vimāna etc".

With all due humility I must say that the down right condemnation is uncalled for. Dr. Bhattacharya (cf. ibid 279) while explaining that term, 'Vimāna', has accepted the meaning of 'Chariot', on the authority of the earliest known lexicographer, Amara Again the learned Doctor while elaborating the two principal schools of Architecture—Drāviḍa Vāstu-vidyā and the Nāgara Vāstu-vidyā, has himself located Brahmā among the foremost earliest writers on the Drāviḍa Architecture the complete list being Brahmā, Śakra, Śukra, Maya, Bhṛgu, Bṛhaspati, Nārada, Nagnajit and Agastya (206). This is what the S. S. says: that the building models of chariots i.e. Vimāna, very common in the early architecture as founded by Brahmā and later expounded by Maya, were adopted as the models for the temple architecture known as Prāsādas. The cent per cent correctness of this simple truth should not be doubted on the premises laid down before.

2. Another testimony with regard to this, comes from Dr. Ramaniya (cf. his famous book 'Origin of South Indian Temples'), where the learned Doctor made a very fine case for the Vimānas as the earliest buildings in the South as corroborated by the early Southern Texts also and illustrated by the unbroken tradition of the temples being made after the model of a chariot in that part of the country (e. g. Mamallapuram). Moreover, in accordance to, as the images were both Cala and Acala, and the carriers of the Cala ones were chariots, therefore, the chariots in their movement are likened to Temples.

3. The third evidence to show that the Southern Vāstu-vidyā and the architecture i. e. Kalā thereof is earlier than its Northern counterpart is based on the origin and evolution of the Stone architecture, especially with relation to the temple architecture in Ind a. Though as per reference in the Ṛg-Veda, the Epics, and the Jātakas (H. A. I. A.), the stone architecture was not unknown in India, it was not associated with Aryans. Dr. T. P. Bhattacary (vide Canons of Indian Architecture Ch. XXVIII) maintains that it was the Asuras (Dravidians or Dānavas) and the Nāgas (cf. also the view of the late Dr. Jayaswala who attributed the origin of Nāgara architecture-- Stone architecture to Bhāraśiva Nāgas) who helped the development of Stone Architecture in India. He further maintains that Stone

houses were in early days erected by the Asuras and Nāgas, the Asuras of the Ṛg-vedic period, the Nāgas and Asuras of Taxila, the capital of Nagnajit and the Asuras and Nāgas of Eastern India mentioned in the Śatapatha Brāhmaṇa and Buddhist traditions. The introduction of the cult of image worship among the Aryans was the harbinger of the adoption of the stone architecture among them. It is our common knowledge that originally the Aryan houses were simple, built of wood and mud. Even when they adopted the cult of worship, the places where they kept their deities were no more than the houses, as they themselves were living in. They called their temples the house of the gods, Devāgāra, Devatāyatana, Devagṛha, Devakula and a host of others prevalent in literature—all indicative of this fact. They were nothing but the replicas of the residential houses. With the introduction of the Stone Architecture, these temples got the name of Mandira, as Viśvakarma Prakāśa (IV. 13), defines it as temples of stone.

It may however, be remarked that these are only tentative propositions, unless they are corroborated in the actual monuments, they may not be acceptable. But my view is that it may not be incorrect to say that temples in some form or other must have originated as soon as image worship came into being. Moreover, if image worship in some form or other had existed among the non-Aryans, existence of temples must also be regarded as a pre-Vedic fact and these houses of gods must have been made in the likeness of human habitations.

Now coming to another topic in hand, the origin of the temple architecture, a very learned exposition of it is found in the 'Hindu Temple' by Prof. Stella Kramrisch. Similarly a good many scholars notably Fergusson, Havell, etc. have also treated this subject with a master hand. But as this is a study of architectural treatise, it would not be proper for me to enter into any lengthy digression on the subject. I would, therefore, confine myself to each of those salient points for which I can gather some material in the text.

The different architectural origins of the temple may be summed up as:—

1. Citi, the Altar.
2. The Dolmen.
3. The shed of initiation.
4. The Tabernacle.
5. The Image of the mountain.
6. The Image of the cavern.
7. The Philosophical background.

These are the principal sources from which not only the origin of the temple is traced, but they also provided the contributory elements in the development of the temple superstructure as well as the temple as an institution of worship.

The three most important structural limbs of the Prāsādas are:—

1. The Base—Adhiṣṭhāna, also called Pīṭha (S. S. 61). It is also called Masūraka, Ādyaṅga, Kuṭṭima, Vāstvādhāra, as per evidence of the I. G. P., another work of the same period.

2. The covered and enclosed chamber technically known as Garbhagṛha.

3. The superstructure thereof.

These principal architectural parts of the Prāsādas refer to the corresponding three different sources or origins.

The Adhiṣṭhāna, the socle or the base of the Vedic altar, the Citi, got itself incorporated in the structural genesis of the Prāsāda as its Pīṭha and Upa-pīṭha, the pedestal. In these lower parts of the temple—the pedestal, the Adhiṣṭhāna, the socle, and the Vedikā, is embodied the memory of the sacred ground (Vedī) with its piled up altar (Citi) where the sacrificial offerings were carried out by the flaming fire. Further Prof. Stella has rightly remarked :—

"The Vedic altar survives in the structure of the body of the temple, in its lowest and highest part. In technique and name, the Prāsāda, the Hindu Temple shares in the name of the Vedī and Citi. Its total structure, moreover, when seen from outside, has the appearance of a massive pile, and is more a monument than a building. The thickness of the walls of the Garbhagṛha and often nearly compact superstructure, also reveal that the entire Prāsāda is a Citi. This is confirmed by its very names, Prāsāda, Sadma, Sadanam, derived from or identical to the word Sadanam itself which denotes the piling of the Vedic altar." These very names are full of meaning and imply a tradition of a very long standing. A similar conclusion is furnished by the meaning of Caitya and Āyatana, as the Prāsāda has done; etymologically and originally, these are all piled up seats or altars, sancturies in the open and also within an enclosed space.

This is, in brief, the account of the origin of lowermost parts of the Prāsāda, the Hindu Temple. Now we come to the dolmen, as a proto-type of the Prāsāda. Here in the dolmen, with its one large flat slab of stone, supported by three upright slabs set on edge so as to form a small chamber with one side open to serve as an entrance, many an ancient shrine has got their proto-type. The flat-roofed

temple has the dolmen for its protopye. In the previous chapter, I have already indicated that in the Samarāṅgaṇa Sūtradhāra all the temple types, evolved and integrated into what the Prāsāda is, have been very elaborately described. In its 49th Chapter, entitled "Rucakādi-prāsāda", it exclusively treats of stone or brick built and also wooden Prāsādas without Śikharas. They are Chādya Prāsādas —covered by chādyas of many varieties e. g. some are double-roofed and others are triple-roofed. Even today buildings of this class have survived in many parts of India and especially in Bengal. These Prāsādas, as just mentioned, in my opionion, owe their origin to the dolmen. That is, here the roof is flat and does not carry a superstructure. Some of the earliest examples, in the monuments preserved for us, include the Ladh khan temple at Aihole. It may be pointed out that the flat roofed temples are found in two types:—

1. The Dolmen type
2. The Pillared-hall type.

Prof. Stella Kramrisch remarks (H. T. page 154, F. N. 65) of these aforesaid Samarāṅgaṇa Prāsādas : "These Prāsādas were not dolmen temples ; their interiors were rich in pillars." I beg to submit to differ with the learned Professor. The dolmen is a crude structure. Its existence even in pre-historic times is corroborated by many a find. From Himalayas to cape Comorin, the Liṅga within the dolmen shrine constitutes the aboriginal temple to this day. Many Śaiva shrines of this type have been discovered by the Archaeological survey (see H.T. 153; F.N. 61 and 53 on p. 150). Naturally, therefore, these types of the temples as described in the Samarāṅgaṇa, an authoritative medieval compendium on Architecture, belonging to the 11th Century, must be improved upon both from the practical i e. architectural genesis of the art, and tradition and the Śāstric norms so much developed by that time. Moreover, the grand and eloquent style of architecture which is the characteristic of this work can not rest satisfied unless it has been raised from the status of the primitive and aboriginal shrines into pillared hall temples.

Raised from the earth where it has stood in accordance with the Megalithic practice, the flat roofed stone temple on its plinth of terrace, is an established type having its proto-type in the dolmen and lavishly and richly pillared and roofed, according to the Samarāṅgaṇa Sūtradhāra.

We have recognised the dolmen shape raised on a socle or base: that is, Adhiṣṭhāna or Pīṭha (according to the S. S.) in the flat roofed

temples so elaborately and exhaustively described by the Samarāṅagṇa in its 49th Chapter. This shape has also formed the nucleus, the sanctuary of those temples having high superstructure and whose walls are rich in buttresses and manifold sculptured images. Such temples enclose this small cubical inner space, unbroken by any opening except the entrance. A perusal of the manuals of the Vāstu-śāstra notably the Samarāṅgaṇa Sūtradhāra, however, shows such temples as having entrances at the cardinal points. On the other hand, the temples that are preserved, generally have only one door to the Garbhagṛha, the place of others (i. e. on the other cardinal points) is taken by the Ghaṇa-dvāras or massive doors; (cf. Tantra-Samuccaya I. II-23) Prof. Stella Kramrisch takes them as 'niches in the walls of Prāsāda and the walls of inner chambers in the interior as a rule are plain.

I think that before the temple as an institution came into being, there were two principal modes of worship which have contributed towards the origin and the development of the Prāsāda-vāstu, namely the Vedic Sadas of the Aryans and the Tabernacle of the non-Aryans.

"While the primeval shape of the dolmen is, architecturally, the proto-type of the sanctuary enshrined in the Hindu Temple, other closed types of sacred buildings, also have preceded the Hindu Temple. They too have lent their meaning and added their shape to the cube of the Garbhagṛha. They are the Vedic shed of initiation and undatable 'Tabernacle' made of bamboo or branches of a large palm leaves only, in which the divine presence is known to dwell while being worshipped".

While expounding the connotation of the Temple in the last chapter, I have already said that the evolution of the Temple, the Prāsāda is a sum total of all the traits known as different institutions of worship and the different architectural styles. The contribution towards the evolution of the temple as made by the aboriginals in the dolmen serving as a proto-type for the roofed and pillared temples has already been explained. The other non-Aryan element is the Tabernacle. Even to this day we have a proto-type of the hoary institution in our Satyanārāyaṇa-kathā, in which without any image, we simply invoke the divine presence and in our glorification and veneration thereof, we decorate it with leaves, especially with those of Kadalī, Āmra, Aśoka, etc. and give shape of a pavillion. These decorations and ornamentation have served as the motif for the later decorations and ornamentations in the Temple (S. S. the 54th chap). The other ancient institution (Aryan one) which has contributed in its own way,

is the institution of Sad, has already been hinted above. Both these have lent the architectural evolution to the internal and external parts of the temple. These are the proto-types of the temples having curvilinear Sikhara and were to rise above the Garbhagṛha on their superstructure. Four bamboos etc. or branches fixed at the corners of a square, their stems bended and tied horizontally by wriths or strings at regular interval is its pristine shape.

Let us take first the internal part, the Garbhagṛha. What is this Garbhagṛha? Samarāṅgaṇa Sūtradhāra in its 19th Chapter on Śālā-architecture in relation to a residence speaks of Garbhagṛha as:—

"यच्छालालिन्दयोः शेषं भवेद् गर्भगृहं हि तत् ।" स० सू० १६.२७/१

For this Garbhagṛha, the precursor is the secluded interior of the sadas on the Mahāvedī which has become the precursor also of the Garbhagṛha in the Prāsāda in its raised terrace, that is the Jagatī (vide S. S. 68. 4). 'The designation Tabernacle', says Prof. Stella Kramrisch 'is used here as equivalent to house of god—'Devagṛha', which is the name given to this primeval form of the temple by the people who set it even today'. Even to day in our Kīrtanas and Kathās we have not forgotten our past practice—this hoary institution of the by-gone ages of unrecorded history. These are some of the most flourishing non-Aryan elements in our composite culture. This tabernacle also accounts for the institution of the moveable and immoveable idols stationed in temples. The immoveable, the Dhruva-bera is permanently fixed in the Garbhagṛha. The moveable the Adhruva-bera, the Cala is carried out in procession (cf. Ratha-yātrā as an annual event in the Jagannātha Puri when His chariots are drawn in procession). Similarly, the temple as Vimāna or chariot is neither a copy of the temple nor is it its model. The temple, the Prāsāda, is the stationary form, the chariot is the moveable form of the seat and house of God, the tabernacle. And Samarāṅgaṇa Sūtradhāra corroborates this fact (S. S. 49, 56, 63, Chapters see Qs.). Prof. Stella Kramrisch has rightly concluded (see H. T. p. 159):

"Both these varieties of the Tabernacle and the image express the two-fold nature of divinity, who as a Pure Principle, Śiva, is immoveale and has an immoveable seat (Acalāsana), and as Śakti, Energy, is movement itself and is, therefore, enthroned on a movable seat (Calāsana). This two-fold aspect of divinity has its corresponding rites, images, and architectural forms such as the Prāsāda, its seat and the Chariot (Yāna) its vechicle". The mythological way of brining this truth home, the Samarāṅgaṇa Sūtradhāra has said at so many

places in its delineations on the origin and development of temples (see previous Qs. on origin of the Prāsāda—the Hindu temple) and, therefore, it should not be criticised as 'confused' by Dr. Bhattacharya (vide C. I. A.).

So far we have been considering the body, the principal units of the constitution of the Prāsāda in its diffe.ent architectural origins, but this account would remain inco ˋ˙te if we do not take into our consideration the different sources which ve contributed to the origin of shape of the the Prāsādas thereof. Fro.. the references both literary and the epigraphic, the temple as a mountain has found an eloquent and increasing praise from the time going as for back as the times of Purāṇas and Epics Moreover, the very residences of the gods, innumerable as they were, were described on the mountain peaks, the higest and sublimest among them, the Kailāśa, is the abode of the great God Śiva. Naturally, therefore, this has also been a tradition of architectural manuals to designate some of the sublimest varieties of the temples, the Prāsādas after the names of the mountains. This has been done by the Samarāṅgaṇa too, in conformity with other ancient manuals of the science. In Bṛhat-saṁhitā, and Matsyapurāṇa, Meru, Mandara and Kailāśa are the first three names amongst the twenty types of temples. These are all the names of mountains and they have a vision behind them to be visualised by the architecture in the shape of the Prāsāda. It is in these names that the Hindu Temple gets its image, aim and distination of this world edifice. The mountain Meru is of the greatest importance in this respect as it forms the very abode of gods. And in the geography of the Purāṇas (cf. Viṣṇu P. IInd Ch. II-17) which says, Mandara is the the mountain, east of Meru, it can be imagined as the Eastern Uraśśṛṅga of Meru. Kailāśa, the abode of Śiva is situated to the north of Mt. Meru, and Sidhānta Śiromaṇi (II III-36) speaks of it as one of the three peaks of Meru, so either of these peaks, Mandara and Kailāśa is a part of Meru. Cosmologically, the Mountain is the axis of the world The temple is a microcosmic emblem of all-pervading formless macrocosmic reality, the Brahman. Therefore, the mountain motifs of the nomenculture of the temple has been a great tradition in India, the analogy of which can not be found elsewhere.

Thus these mountains have given the grandest models to the architectural genesis of their shape. The Mt. Meru is higly extolled in the Samarāṅgaṇa. It is called the Prāsāda-rāja, king of the Prāsādas (cf. S. S. 55.3) and I shall later on show how this type of the Temple Meru as described in the Samarāṅgaṇa Sūtradhāra served as a model

in the actual architecture of the day. Prabandha Cintāmaṇi says, "King Karṇa of Gujrat constructed Karṇa-Meru Prāsāda in Anhilwad, the name of the king being linked with the temple type Meru".

Another motif serving as the model for the evolution of the temple in the architectural origin more particularly the shape, has come from the caves. The image of the mountain and the cave is known in nature and is given form by the architect. The caves as the abodes both for retreat and meditation, have been a very hoary inst tution in our land. It also throws light on the cult of caverns. Even to this day the Himalayas are full of natural caves, small or large and sacred. Moreover, the caves are ancient residences of gods. It was not only on the banks of rivers, that they loved to dwell but also in the caves. This institution is symbolic of man's return to nature and when given a concreate shape, the architectural treatises like Samarāṅgaṇa Sūtradhāra call them as Layana, one of the types of the Prāsāda. Another type is Guhādhara. Layana, etymologically a place of rest, is the name for rock-cut temples and Samarāṅgaṇa Sūtradhāra in its (59th Chapter 236-237) has given a vivid description and more will be said in a later chapter. Here it is enough to say that to the natural habitation, both of the gods and men—a happy union characteristic of the Satya-yuga that primordial age is remarkable for its revival and reconstruction for retreat and congregation to experience the self-same union. The rock-cut cave, for this purpose, is a comparatively modern institution. The Ājīvikas, a Jain sect and the Buddhists were the first to cut the rock for the purpose of cave habitation in peace and solitude, meditation and contemplation. Prof Stella Kramrisch rightly remarks "within Brahmaṇism, the substitution of excavated caves for natural ones took time to evolve".

With this very brief exposition of the architectural origins of temple structure, we can not refrain from commenting that all these are representative of the philosophical idea behind the temple as a spiritual institution from the Orthodox Hindu point of view. The Hindu Temple, the Prāsāda, is not only a symbolic representation of the supreme reality in both the manifested and un-manifested forms, but also is the sum total of all the basic architectural origins, a brief notice of which has been taken in the previous pages. The architectural evolution of the Hindu Temple is synchronous with the philosophical speculations of Hindus.

CHAPTER III

THE DEVELOPMENT OF THE PRĀSĀDA-VASTU

In the previous chapter an attempt has been made to trace the origin of the temple as an institution of worship as well as an architectural edifice. Here in this chapter an attempt is to be made to trace its development. We know that the chief development of the Indian Architecture centres round the Hindu Temple, distributed all over this vast land as specimens of different styles more particularly the Northern and Dravidian ones is the two principal parts of this country—the Āryāvarta, the North and the Dakṣiṇāpatha the Deccan. Scholars have amply investigated this subject in their monumental works. Savants like Havell, Fergusson, Brown and Coomarswamy and Stella Kramrisch, to mention only a few of them, have in their respective volumes, investigated into this branch of architectural studies in relation to the monuments, as they are preserved to us, Naturally all these volumes are an attempt to evaluate the development of the Temple, the most fascinating architectural activity of the Indian architects and their patrons—the ruling dynasties of both the ancient and medieval India—Chālukyas, Pallavas, Cholas, Pandyas, rulers of Vijayanagaram and Hoysalas, all belonging to the southern India, their northern counterparts being those belonging to Orissa, Khajuraho, Rajputana, Central India, Gwalior and a host of others. Religious fervour was at the root of this architectural renaissance both in India and the West. Jainism and Buddhism and Brahmanism, all three religious currents have contributed to the marvel of architecture, of which we can be proud. I have expounded the thesis more than once that the Indian architecture got impetus for its evolution and development from religion and under the patronage of the kings, it made singular strides of development. Not one, not two, but dozens of temples, both rock-cut cave-temples and religious edifices of Prāsādas and Vimānas are stupendous in their craftsmanship and marvelous in the designs and supernatural in the accomplishment. This great achievement may fittingly be termed as the architectural renaissance of our land. The saying that literature is the mirror of society, if it has got any truth behind, the Samarāṅgaṇa Sūtradhāra, the standard compendium of the medieval architecture has portrayed this mass activity of mankind in India when "as if the whole population had to a man been apprenticed to the stone mason" otherwise how can we explain that in India every hamlet has its

cluster of shrines and in every town the tall spires rose of temples singly or in groups. Mr. P. Brown is very apt when he says, "It should be realised that in all works of art, and particularly in the temple architecture of the country, in the mind of the Indian people, the religious, philosophical and meta-physical qualities of the production takes first place, the artistic character being regarded as secondary. The intellect of the age, absorbed largely in divine contemplation, is reflected in the temple ideal, where the spiritual dominated the material" (vide Indian Arch.).

This is, in very brief, only a hint at the colossal works of art that the artisans have achieved to the glory of gods, having added glory to themselves betokening the glorious past. Naturally, therefore, in a work like the present one, in which a study of a manual of architecture is the main concern, the kind of investigation as has been done by the indologists mentioned above, is out of place. Here I am concerned to see, on the basis of the material available in the texts, how far this work mirrors the development of temple building in India in relation to the different norms prescribed by the Texts of the Vāstu-śāstra and more especially the text under review, the Samarāṅgaṇa Sūtradhāra.

I have already said before, that Temples have formed special fascination of the king, who as a great devotee himself has written with devotion on the devotional architecture devoting more than half of the work to the un-paralleled delineation of the Prāsāda Vāstu. I, therefore, without any detailed introduction or digression therefrom, must point out the basic point of view, of the analysis of this topic. As a matter of fact, the greater part of this Part is an analysis of the same topic—the development of the Temple Architecture. But the parts may be distinct so that the whole becomes integrated, not a mere jumble. For example, the development in the categories (i.e. Jātis) and varieties, the divisions and classifications of numerous temples as has been done in the work will form a separate chapter. The development of the temple from the point of view of styles—Nāgara and Drāvida together with an additional list of several others—a special contribution of this work, will form a separate chapter. The development of the temple architecture in relation to sculpture and ornamentation—the decorative art has formed a sub-heading of another chapter. This is an outline of the development in relation to the matter. The transcendental, or more correctly the metaphysical and spiritual development forming the true genius of the Hindu Temple as a great institution, must also be spoken of

somewhere and this forms a part of another chapter under the planning of the Prāsāda. Therefore, the delimitation of the topic is a natural consequence. Here, in this chapter, I have to view the structural development—the development of the body of Prāsāda, the nucleus of which has already been found out in the different origins of the Prāsāda, the Vedic altar, the Citi, the Saḍ, the shed of initiation, the dolmen, the Tabernacle and the image of the mountain. Herein I shall have to occupy myself with the two principal types of structural development of the temple—the pyramidal shape and the superstructure thereof and the curvilinear shape, the Śikhara and the superstructure thereof.

The text of the Samarāṅgaṇa Sūtradhāra is full of prescriptions and the illustrations thereof in the different categories of the temples enumerated therein. I may also point out here that as the Samarāṅgaṇa Sūtradhāra belongs to the eleventh century, the medieval period of Indian history, many a new type of temple had arisen in consonance with the rise of the temple as a sacred institution itself, a notice of which has already been taken in a previous chapter of this part.

Again, these introductory remarks in connection with this topic of the development of Prāsāda-vāstu would remain incomplete, if I do not touch upon another essential element in the development, namely the materials, the different categories of which will form a subheading of another chapter. These are some of the broad currents which had risen from the different sources culminating in the Prāsāda mystically as deep as ocean and as high as the mountain.

Now coming to the subject proper, I have already indicated that this topic has got two angles, namely the development of the Prāsāda-vāstu as:

(1) The pyramidal super-structure and
(2) The curvilinear super-structure.

Let us first take the first angle and see how far the Samarāṅgaṇa epitomises the different ramifications of the pyramidal super-structure which has given birth to some of the stupendous specimens in the monuments, the examples of which have survived to us in temples like Bṛhadīśvara Temple at Tanjore.

Both in the pyramidal super-structure and the curvilinear one, the development of the Prāsāda-vāstu is intimately concerned with the philosophical background or transcendental aspect forming an

architectural content in consonance thereof. Dr. Kramrisch is very apt in her remarks when she says: "Works of architecture serve a purpose; the Hindu Temple as much as a Gothic cathedral exceed their function of being a house or seat of divinity. While their orientation and expansion are in the four regions of space, their main direction, in the vertical, is towards God, the supreme principle, which is beyond form and above His seat or house of manifestation. From all these regions of space, from its walls in the four directions and their corners in the intermediate directions, the Prāsāda, rises bodily towards its High point, tier on tier, until diminished in its bulk, it forms the High Altar (vedī) on which is placed the crowning High Temple or the Āmalaka with its finial that ends in a point." (H. T. 179).

This fundamental conception of the Prāsāda viewed in the light of the architectural form can not have a proto-type in the residential houses either of men or kings. The Hindu Temple, the Prāsāda having its own characteristic of divine evolution and development, can not be mistaken for, or derived from a palace or any dwelling of man and the Samarāṅgaṇa has fully realised this fact as would be evident in further delineation,

According to the early manuals of the Vāstu-śāstra and the Samarāṅgaṇa which keeps up to that tradition, though it has added to their list, the super-structure is comprised of the following principal parts:—

1. If it is a curvilinear and truncated body.

   (a) Kaṇṭha (a neck), gala or grīvā;

   (b) Āmalaka (crowning part) or

2. If it is a pyramidal truncated body—a small High Temple (call it Vimāna or Harmya) whose walls form the neck (kaṇṭha, gala, grīva) of its massive dome-shape as the crowning part.

N. B. Śikhara in the present context is used to denote this whole super-structure including the crown and upto the finial.

Again it may be pointed out here that in the South Indian Texts (cf. Īśānaśivaguru-deva-paddhanti, Part IV. Ch. XXXII) the pyramidal super-structure is designated by the number of its storeys (Bhūmis), whereas Śikhara is the name of the dome-shaped massive roof of the small crowning miniature temple only. This Śikhara or massive dome-shaped roof is described as square or circular or six-sided or eight-sided.

Again I entirely agree with the learned authoress of Hindu Temple when she says, (Page 182), "Śikhara thus particularly denotes a shape curvilinear in the vertical section whether it is used to designate the whole super-structure of North Indian Prāsādas or the cupola of the High Temple only which is placed on top of the super-structure of South Indian Prāsādas. This two-fold use of the term Śikhara in Indian Vāstu-śāstra has led to wrong interpretations. Its square or round etc. horizontal section on South Indian Temple (Śiraśchanda; Mayamata, XVIII-1) has mistakenly been considered by modern scholars a criterion of the entire super-structure of a Hindu Temple".

Again it may be pointed out that various kinds of high roofs of the Prāsādas exist and are prescribed in the texts and more particularly in the S.S. the 49th (double and triple together with so many other super-impositions). These Prāsādas of the Samarāṅgaṇa Sūtradhāra are the examples of roofs having this variety of super-structure.

Again some of these types of Prāsādas have:—

(a) Barrel roof (aspidal temple). It is an adaptation of the Buddhist Caitya hall—cf. Kapoteśvara temple.

(b) Vaulted roof having a ridge (rectangular sanctuary)—cf. the Rathas at Mammallapuram.

(c) Keel-vaulted—typical of the top of the gate-towers of the temples in South India.

(d) Domes—belonging especially to huts of hermits, to chapels and temples where round domes are more frequent. These various dome-shapes were transmuted, as extant examples show, from their leaf covered proto-type (Parṇa-kuṭī or Parṅa-śālā with bamboo frame), into brick and stone. They form the solid shape of the small—High temples which crown the South Indian Prāsādas with its pyramidal super-structure.

Thus both the two main types of the super-structures of the fully evolved Hindu Temple, have truncated bodies, their sides which are either straight or curved, are terminated by a platform (Skandha-the shoulder course). Above rests the crowning portion (a miniature Vimāna or an Amalaka) whence rises the finial.

This super-structure has several components and is illustrated in several types of the monumental temple-buildings, a detailed notice of which has been taken by Prof. Stella Kramrisch. For the sake of completeness, however, they may be briefly noticed.

naturally, must influence and be influenced by, this region. Some of the temple types (they may be called styles also) arose out of the local characteristics of the craftsmanship and the religious beliefs. Hence the excessive display of ornamentation on some of the temples of Gujarat, has given rise to a particular sub-style known as Lalita Prāsāda, as described in this book under the 56th Chapter, 25 of them are examples of this variety. Similarly, as influenced by the sacredness of the temple institution and the tradition of Pradakṣiṇā, its corresponding evolution in the temple architecture gave rise to the Sāndhāra Prāsādas, the temples having a circumambulatory passage alround, meant for the devotees to pay their homage not only to the deity enshrined in the temple, but to the temple itself, the body and the concrete manifestation of God, who is formless. Similarly, there are several other varieties which will be dealth with in three subsequent chapters—the classifications and the styles.

Here we have to take into our account the broad elements of the development of the Prāsāda in regards to its curvilinear super-structure, the most common characteristic especially of the North Indian temples, dedicated to Lord Śiva—the God whose abode is the highest peak of the world—the Kailāśa.

We see that when the buttresses make their apearance on the otherwise plain wall of a temple, its roof too is no longer a flat one, it carries the super-structure, the Śikhara. This is first stage of the development. Later on, according to the complicated architectural traditon, many complex and intricate processes were the result. In works like H. P. XIII and Agni-Purāṇa XII, which preceded the Samarāṅgaṇa Sūtradhāra by centuries, the construction of the curvilinear Śikhara is prescribed by means of a division in geometrical progression by four-fold division (चतुर्गुणसूत्र). This is the underlying principle of the buttressment of the curvilinear super-structure. By the time of the Samarāṅgaṇa Sūtradhāra, however, this process became more developed. We have indicated that the Agni Purāṇa speaks of the four Sūtras which are to be separately drawn from the base of the Śikhara upto the other end—the Skandha. In the Samarāṅgaṇa Sutradhāra, on the other hand (cf. the 57th Chapter) it is made clear that this shoulder course of the Sikhara generally assumes 6 parts in width, the base of the Śikhara, measuring 10 parts. Again the following lines of Samarāṅgaṇa Sūtradhāra are worth quoting, in which it is prescribed that the height of the trunk of the Śikhara being given, it should be divided by geometrical progression into a certain number of parts, three, four, five or six:

"चतुर्गुणैः पृथक् सूत्रैः पद्मकोशं समालिखेत्" ॥ १३७/१ अ० ५६
"पृथक् सूत्रैस्त्रिगुणितैर्वेणुकोशं समालिखेत्" ॥ २७५/२ अ० ५६
"सीम्नः पञ्चगुणं सूत्रं रेखान्तं तत्र वर्तयेत्" ॥ ८१७/१ अ० ५७
"षड्गुणेनैव सूत्रेण मध्यरेखां समालिखेत्" ॥ ६७४/२ अ० ५७

N.B.—The diagramtic representation in the apendix will make it clear how Padmakośa or Veṇukośa can be formed with these geometrical progressions three to four. (Triguṇa and Caturguṇa).

The Prāsādas as described in the Samarāṅgaṇa Sūtradhāra under the heading: "Mervādi Viṁśikā" (though under this heading a variety of fitfy other Utkṛṣṭa—superior types of Prāsādas are also described) with their curvilinear superstructures are "the most particularly Indian amongst the monumental shapes of the temple. While cube, prism, and pyramid belong to sacred architecture not only in India, the monumental shape of the 'Tabernacle', originally of branches etc. curving towards one point, is the pre-eminent shape of the Hindu Temple. Rich in possiblity, they have been elaborated and massed around the central dominent theme, accompanying its direction towards the highest point (H. T. p. 209-10)."

This super-structure of the curvilinear type has got three main varieties, namely.

(1) As the cluster of the Śikharas.
(2) The Śikhara enmeshed in Gavākṣas and
(3) The composite Śikhara.

These varieties will be developed in subsequent chapters (vide chapter XI—The Correspondence of the Prāsādas of the S. S. in the monuments and the 'concluding' chapter —An outline history etc.)

Now, while concluding this treatment of the development of the Prāsāda-vāstu into the super-structure of various types and manifold designs, a word on the underlying idea of the general form or shape of the super-structure and its allied function is called for to bring home to the readers the implication of the material super-structure in relation to its transcendental background. Dr. Kramrisch has very ably brought out this point (H. T. p. 220) :—

"The shapes of sacred architecture absorbed by the super-structure itself or subsumed to it are many. With them the image of the Mountain was given an indefinite number of variations. The purpose of the super-structure is always one and the same. It is to lead from a broad base to a single point where all lines converge. In it are gathered the multifar-

ious movements, the figures and symbols which are their carriers, in the successive strata of the ascending pyramidal or curvilinear form of the superstructure Integrated in its body they partake each in its proper place in the ascent which reduces their numbers and leads their diversity to the unity of the point."

The Prāsāda, the Hindu Temple has three parts:—

1. The soild base or socle, its altar,
2. The sanctuary with its vertical wall and
3. The crowning part—the highest part, the Āmalaka or the High Temple.

"By its form the Prāsāda leads from the square at the base to the point above; by its exaulted position and by its form, which leads to the peak, the super-structure is the Mountain; its mass is the vesture (koṣa) in which is clad the Axis of the temple. This emerges, in its top-most portion only, as section of a mighty pillar, as the 'neck' (grīvā) of the temple, above the shoulder (Skandha) of the super-structure. The symbol of the Pillar of the Universe inheres in the picture of the World-mountain".

The fundamental form of the super-structure is in keeping with its purpose which is always one and the same. It is in a way the journey of the man to the man through the vicissitudes of life, symbolic of ups and downs till—a vision is realised—the destination is reached.

CHAPTER IV

THE PRĀSĀDA STYLES

Indian Temple Architecture is classified into three broad divisions of styles namely, Nāgara, Drāviḍa and Vesara. Standard norms of judgment of a particular branch of art or literature, science or philosophy are evolved only after a good deal of progress in that branch has been made. Styles of Architecture could only have been evolved after a good deal of progress in the architecture itself. The origin of Indian Architecture and development has formed another chapter of this work and hence it is enough here to say that in its initial stage of development Indian Architecture did not bother about watertight classification of styles of Drāviḍa etc. The Śulba-sūtras and the manifold injunctions found in the Gṛhya and Śrauta Sūtras regarding the Pūjā-vāstu—the altars and Sadas—their layouts, proportionate measurements and materials etc. formed the guiding code for the Sthapatis and the Sthāpakas of the old. As time passed and current of architecture which had flown from that fountain head of the Kalpa, took an independent course on its journey, it became an indepedent theme for producing independent manuals of the Śāstra and there was a great line of Ācharyas forthcoming. The whole code was Brahmanised. Brahmā, the Creator of the Universe was the first Ācharya. He gave this lore to Viśvakarmā—the heavenly architect. No divine lore could remain unpassed to the Asuras hence the two schools flourished side by side. Thus this course of Vāstu-vidyā, gave rise to two distinct styles—namely Drāviḍa and Nāgara, the former belonging to the school of Maya flourishing in the South beyond the Vindhyas and the latter rising from the school of Viśvakarmā having its foot-hold on the northern India.

Now between these two styles of architecture, the nomenclature and characteristics of the first one, namely the Drāviḍa Style are clear inasmuch as it represents its geographical and cultural content in an unmistakable term. It represents that part of the country which we call South, beyond the Vindhyas and the culture of the Drāviḍas. Now the question is, can we draw the same conclusion regarding the other term, the Nāgara which I have said before, is a product of the North. The word Nāgara is of an ancient origin as is evident from so many references in the literature (see Ency. of H. A. under 'Nāgara'), but it gives nowhere an explicit geographical

limit so as to compare the whole of the Northern India. Dr. Acharya's conclusion in this respect is worth mentioning (see Ency. Hindu Arch. 269). "From all the literary and epigraphical instances given above, it appears certain that the expressions—Nāgara, Vesara, and Drāviḍa are primarily geographical. But the precise boundaries of Nāgara like those of Drāviḍa and Vesara, are not traceable. The epigraphical quotations however, would tend to localise Nāgara somewhere within the territory of modern Mysore. But the Nāgara script, the Nāgara-khaṇḍa of the Skanda-Purāṇa and the Nāgara Brāhmaṇa representing some way or other the Northern India from the Himalaya to the Vindhya and from Gujrata to Magadha, would justly give a wider boundary to Nāgara".

This is one way of tracing the import of this style of Indian Architecture and this subject has formed a learned discussion among the scholars writing on this branch of Indology, notably Fergusson, Havell and Coomarswamy, to mention only a few among that body of scholars who have discussed this question in their respective ways and the reader is referred to their works for a detailed delineation of this thorny problem of Indian Architecture.

But as I am studying the S. S., the question is: "Does this work throw any light on this subject?" Directly we have no such evidence. Indirectly however, we can draw some conclusion. We know that the Aryans primarily, were the dwellers of villages, the small units of habitation. The Epic India and the Buddhist India saw the rise of many cities. Any town-planning in ancient India was *incomplete unless it had allotted a good portion of the town to* the localisation of the temples dedicated to the different deities. Vātsyāyana, a contemporary of the Epic Age may be given the credit of enunciating the code of the citizens in their daily life of culture and refinement. Hence the rise of cities was synchronous with the rise of the citizens and the citizenship, which in their turn influenced all the arts of culture and more so the greatest of arts, the art of architecture. No art, unless it arouses an aesthetic feeling, is an art at all. Hence a building, whether it is a residential house, or the palace of a king or the abode of God—the temple, must be beautiful, otherwise the builder, the Yajamāna, the Sthapati and Gurū, the Sthāpaka Acharya consider all their labour lost. Hence a new criterion of house-building became as established norm. From this aesthetic stand-point the S. S., in many places has associated this element of "beautitude" with this styple, the Nāgara style, as would be evident from the following quotations from the text:—

(i) नगराणामलङ्कारहेतवे समकल्पयत्

(ii) पुराणां भूषणार्थाय मुक्तिभुक्तिप्रदा नृणाम्

(iii) See the fuller passages below (vide the Origin of the Prāsāda).

Thus the Prāsādas of the S. S., classified under the separate chapters are those to be built in the Nāgara style and the chief characteristic of this style is the high standard of beauty—the very art to be made so perfect and unblemished as to arouse a high sense of aesthetic experience. This also fits in with the ordinary etymological meaning of the word. The word Nāgara, as derived from Nagara, a city means 'pertaining to a city or town'. Again the 'Nagara' was the word for Pāṭaliputra, the capital of the empire under the Guptas and their successors. This is the generally accepted meaning also in the Samarāṅgaṇa. "Prāsādas of stone and burnt bricks should be built for the adornment of towns, the Nagaras". This is not Samarāṅgaṇa's injunction alone, it has a tradition behind it. Kāśyapa, quoted by Utpala, in his commentary to the 'Bṛhat-saṁhitā' LV.16 similarly enjoins that 'temples conforming with the prescriptions should be built according to the towns (pura).

Thus, in my opinion, it is futile to locate the geographical boundary of the word Nāgara, as some scholars have done according to their theory that all these names are geographical in nature.

In Aparājita-pṛcchā, however, Nāgara is definitely 'Northern'. A good case for this proposition has been ably made out by P. A. Mankad (vide Introduction to Aparājita-pṛcchā of Bhuvanadeva). The Aparājita-pṛcchā gives Nāgarī Rekhā as "Northern" curvilinear line of Śikhara.

Drāviḍa is quite clear. The geographical denotation of the word Nāgara is also expounded on the authority of Dr. P. K. Acharya. Vesara we will presently see. Let us dwell a bit more on Nāgara. The aforesaid connotation of the word Nāgara (a word of doubtful denotation) goes well with the enunciation propounded in the previous paragraphs that a culture revolving round the four walls of a city must be an ideal culture. Hence the standard of a good building, temple or any other building, is set by the townsmen themselves i. e. the Nāgarikas. The Sahṛdayas, the Sabhyas, have been the best judges of art at all times in all arts, be, it poetry or painting. The art of architecture should, therefore, be not excluded, (cf. Kālidāsa, "आपरितोषाद् विदुषां न साधु मन्ये प्रयोगविज्ञानम्")

The ternary of Nāgara, Drāviḍa and Vesara after all is an expression of the exuberance of the building activities of the most

famous centres localised in the three more important regions of the land. This triad further more is made up to imply not only the wholeness of India but also the completeness of the three guṇas, like other ternaries as symbols of totality—three principles of manifestations, three castes. Īśānaśivagurudeva's remarks as contained in his Paddhati—III. XXX—47, support this contention.

In some of the texts on the Vāstu-Śāstra the ternary is described on the basis of the shapes of the buildings (vide Ency. H.A.). Nāgara, one of the three styles of Architecture is quadrangular in shape, the other two Vesara and Drāviḍa being respectively round and octagonal. The Mānasāra supports this classification of styles having the basis of the shape of buildings square or otherwise, which is a late innovation. But the question is: When did it arise? To what period of history did it belong? Nobody can decide. The paucity of data is simply formidable.

The S.S. along with so many other works (like V.P., Br S., M.P., A.P.) classify temples into various kinds (see ahead) of which some are ractangular, some octagonal and others oval or circular. Again all these temples so classified are as examples of Nāgara Style or Order. Hence the contention of Dr. Bhattacharya, that the criterion of shape is not a universal criterion and that it is a late innovation, seems to be tenable. It is therefore, quite clear that according to Śilpa texts only square temples were not Nāgara temples, Nāgara temples, according to Samarāṅgaṇa, admit of all possible and prevalent shapes—rectangular, oval, hexagonal, octagonal, etc. etc. Similarly it can be said that the circular ones were not Vesara temples and the only six-sided or octagonal temples were not the Drāviḍa temples. Therefore, it would not be incorrect to say that this classification of Nāgara etc. does not primarily take the shape of the buildings or temples as criterion of classification. It was a cultural or geographical consideration as hinted above. Perhaps Dr. Kramrisch is nearer the truth when she says: "The early sources from the 'Bṛhat-Saṁhitā' onwards to the earlier chapters of the 'Agnipurāṇa' classify the temples neither according to Nāgara, Drāviḍa and Vesara, nor according to their regional distribution. They give the norms of proportionate measure and list twenty possible shapes of the Prāsāda which conform with the canons"—(H. T. 286).

But it may be pointed out here that the 20 temples of the early Vāstu-Śāstra-Texts, having no stylistic criterion either of shape or region, only representing all the possible shapes of the Prāsāda, when treated in this book, the S.S. of the eleventh century A. D.—the medieval period of Indian History, are called Nāgara Prāsādas

(vide Chapter 63rd). These twenty temples of the early manuals in the eleventh century are called Nāgara. This is how they are distinguished from the Drāvida Prāsāda (vide S.S. 61-62) and the Vāvāṭa Prāsādas (64). Nāgara as a style of temple-architecture was a later criterion of classification. By the time of the S.S. however, it was an established style, the style of universal recognition and having its sway all over India as would be evident from the discussions on another style of equal merit, the Drāviḍa Style.

Drāviḍa.

As the S.S. belongs to the Viśvakarmā school of Vāstu-vidyā as handed down from Brahmā, the Creator of Universe, and as the style which originated in this school is the Nāgara style—the standard style and the perfect style of universal value and recognition and having its sway not only all over the North but also in the South, a detailed discussion was necessary in this study of the S.S., but as regards the Drāviḍa, the paucity of space forbids me to go beyond a few pages. Temples, characteristic of this style have been treated in two chapters in the S.S. (vide Chapters 61 and 62). The main topic of both these chapters (see Summary also) are the five-fold Pīṭhas and the same number of the Talacchandas characteristic of the evolution of the Drāviḍa temples by this time of the S.S., together with the twelve classes of Drāviḍa Prāsādas having one to twelve storeys. We have already taken notice of the criterion of the shape as the distinguishing feature of the three styles—Nāgara, Drāviḍa and Vesara (vide Dr. Acharya, Ency. H.A.). From the perusal of the contents of the S.S (already referred to) and other Śilpa texts mostly those belonging to the South Indian group, however, it follows, that if one were to verify the texts with reference to the existing monuments, the Dravidian temples are not hexagonal or octagonal in ground plan. This supports our contention made before and Mr. Sarswati (Indian Culture VIII. 188) also views it in the same way. The descriptions of the Drāviḍa temples according to him are "too meagre altogether to fit the facts". Thus if we evaluate the Dravidian temples in the following account, it would not be going far from the truth. The main characteristics of the Dravidian temples are the square temples surmounted by a Śikhara which are divided into compartments like storeys, on the top of which are two kinds of crowning pieces, one like that on the 'Shore' temple at Mamallapuram, and the other like the one in Gaṇeśa Ratha of that place. All the manuals on Vāstu-śāstra especially those belonging to the Maya school or Drāviḍa school, describe temple divisions on the basis of the storeys in the Śikharas which might be twelve in number or upto seventeen (cf. Śilparatna). The crowning

piece is called the 'Stūpī' with the Kalaśa. And one of the most representative Northern texts, the S.S., knew these real characteristics of the Southern or Dravidian temples. As stated above, this work most curiously, at the very outset, says that the Dravidian temples may consist of storeys upto 12 in number and then these temples are classified according to their number of storeys. The Samarāṅgaṇa in this respect exactly follows the tradition of the Southern texts.

Another point to be noted in relation to these Dravidian temples is that all the Northern texts describe the crowning piece of the temples as an Āmalaka or Āmalasāra. The South Indian texts with the exception of Kām·kāgama and perhaps also Mayamatam never refer to the Āmalaka but always to the 'Stūpī'. These are the two quite distinctive features of the Northern and the Southern styles or orders of the Indian temples.

Vesara

Though the term Vesara, as the technical name of an Indian style of architecture does not occur in this manual, or for that matter perhaps in any of the North Indian text, yet as the ternary Nāgara, Drāviḍa, Vesara looms large in contemporary discussions on Indian architecture among the indologists working on this branch, and as it has found more than one interpretation, it becomes necessary for the sake of completeness to say something on this too. The main styles which the S. S. elaborates are Nāgara and Drāviḍa and the triad of names is completed by the term Vāvāṭa (Vārāṭa)—vide Chap. 64, Digbhadrādiprāsādas. It may be noted that Vāvāṭa or Vārāṭa has no place in the Sanskrit accounts of ancient Indian geography, and as regards its location, we shall presently see.

The Vesara has been interpreted by scholars in more than one ways. In Encyclopaedia of Hindu Architecture, Vesara is a style of architecture once prevailing in the ancient Vesara or Telugu country, "India between the Vindhyas and the Kṛṣṇā corresponding to Tamil India" (S. K. Aiyangar J. I. S. O. A. Volume II No. 1 page 23-27). As Nāgara style is distinguished by its quadrangular shape, the Dravida by its octagonal or hexagonal, the Vesara is distinguished by its round shape (vide Mānasāra LIII. 53-54).

नागरं चतुरश्रं स्यादष्टाश्रं द्राविडं तथा ।
वृत्तं च वेसरं प्रोक्तं ....॥

Dr. Acharyas' remarks regarding this style are worth quoting: "If the identification of Vesara with Teluga or Tri-kalinga is accepted,

and if the reading Āndhra for Rāndhra is also accepted, the Kaliṅga and the Andhra would be two branches of Vesara. And as the Drāviḍa style is stated to be of the hexagonal or octagonal shape, it would appear that the Drāviḍa proper is octagonal and the Andhra, which is placed between Drāviḍa and the Vesara, is hexagonal".— ibid p. 261.

Though the learned Doctor has thrown a good light on this term, it must be admitted, that this style was the most confusing one. Like Drāviḍa, it does not admit a geographical division of temples, at the most it is a stylistic one as per Holai inscription, which shows that these terms indicate four classes of Indian architecture. Dr. Bhattacharya (159) says: "The difficulty is about the word Vesara, which I think was not a style but indicated really the shape of a structure being round (similar to the ring like ornament 'Vesara' of the nose). This may also explain and remove the difficulties about the location of the Vesara style of building. If it was a style based on geographical division, it was of very late origin not fully developed before the eleventh century." Again in foot-note he says, "The terms, Nāgara, Drāviḍa and Vesara, therefore, meant, to South Indian architects, three varieties of buildings of South India built of different shapes, not three separate styles, viz. of North India, of the Deccan, and of South India. Vesara means also a 'mule'. Does the word refer, therefore to a hybrid style" ?

Vesara as mule or nose-pearl is absurd. The best and correct meaning was given in the Mānasāra at a period when the word was just coined. It is derived from द्वि+अस्र →द्वस्र → वेसर that is an apse combined with rectangle like this. (_________|. The style was cultivated in the Chalukyan country, cf. Durga temple.

The interpretation of the word 'Vesara' as mule, is however acceptable to Dr. Kramrisch (H T. p 291). Dr. Kramrisch says: "Vesara in contra-distinction to Varāṭa, is not the name of a country (though in I.P. III.XXX 41 b Vesara, appears to have become substituted for, or identified with Vārāṭa). It means 'a mule', an issue of heterogeneous parents; According to Kāmikāgama, in plan, it is Drāviḍa, in the shape of its details, it is Nāgara. It, therefore, denotes a mixed style." "Vesara temples" according to Dr. Stella Kramrisch (vide H.T. p. 291) "are generally assigned to the country between the Vindhya and Agastya (Nasik) or from the Vindhyas to the river Kṛṣṇā as in the Kāmikāgama. It thus seems that Vārāṭa and Vesara denote types of certain temples, particularly assigned to the Deccan. But these temples, of 'mixed type' are preserved to the South of the region allocated to the Vesara. They were built by the later Cālukyas in the

Kanarese Districts, and by the Hoysala Dynasty in Mysore. They represent a school which consolidated its particular style, later than, the temples having a curvilinear Śikhara of those of the Drāviḍa country. Certain special features of these temples result from an admixture of Nāgara detail to Dravida buildings; this is natural in a region betwixt two powerful schools of which Nāgara, the first and the foremost is centred in Madhyadeśa, according to the Aparājitapṛcchā,—in the country bounded by the river Sarasvatī in Kurukṣetra, Allahabad, the Himalayas and the Vindhya and Dravida in the South India. The earlier Cālukya temples (type I) are Drāviḍa in plan, the later are Nāgara in plan.

Vāvāṭa (Vārāṭa).

As indicated before, the S. S. has no place for Vesara Besides Nāgara, Drāviḍa, it has described two more styles, Vāvāṭa (Vairāṭa) and Bhūmija. As regards the former as many as twelve types of temples (vide S.S. Digbhadrādi-prāsāda-lakṣaṇa, the 64th) in this order have been described in the text. This order of Vāvāṭa Prāsādas is also referred to in Aparājita-pṛcchā. The Hayaśīrṣa Pañcarātra also refers to it (vide Chapter 18). Again Vārāṭa temples having storeyed pyramidal super-structure are referred to in Kāmikāgama.

Unlike Vesara, this word Vāvāṭa (for Vairāṭa) seems to be a territorial division like Drāviḍa. It being derived from Varada (Berar) designates Vidarbha (Berar), which in the opinion of Dr. Kramrisch extended from the river Kṛṣṇā to about the Narmadā.

It may be, however, pointed out that in the opinion of Dr. Kramrisch "the extant temples in this region however, neither conform to the description of Vārāṭa (Vāvāṭa) Prāsādas in the S. S. Ch. LXIV, nor with that in the 'Kāmikāgama'. The descriptions would more closely fit the temples known as Chalukyans.

With due respect, I would submit that the Chalukyan temples had two phases, the early Chalukyan as represented in temples at Aihole, Badami and Pattadakal and the later Chalukyan as represented in the most artistic super-structure of Hoysala temples at Mysore. Some of the specimens of the first phase, I have already classed them as to be the illustrations of the pillared hall-temples—the Chādya Prāsādas having double or triple roofs. They belong to 6th and 7th century A. D. The later temples, however, rose after 1050 A. D. Naturally, therefore, it does not fit in with this characteristic of the architectural style. Moreover, the descriptions of these temples as we meet in the text, provide us with ample justification to say that

they more or less developed under the influence of the Universal style, the Nāgara. The S. S. shows the Vārāṭa temples as similar in plan to Nāgara temples. They have retained their pyramidal characteristic as their super-structure does not seem to have been curvilinear. Hence it appears, like Vesara, Vāvāṭa is a mixed style—a regional style developed with characteristics of two prominent styles—Nāgara and Drāviḍa. More I will say on these, in the subsequent chapters—VI and XI.

Bhūmija.

Literally, it is a local style, which must have originated and got developed in some of the renowned centres of art owing their allegiance neither to the styles of the South or the Deccan nor of the North—the two most predominent styles, the Drāviḍa and the Nāgara. Dr. Acharya (Ency. page 271) has rightly interpreted it: 'It originated on the land or the style of the land, where the document was written.' He further says. 'In one of the epigraphical quotations (No. 15) Bhūmija is mentioned alongside Drāviḍa and Nāgara and this Bhūmija is apparently the same as Vesara'. Can it refer to the Assam-Bengal style where theBhauma kings ruled? Nothing however, can be said authoritatively.

The S. S. in its chapter entitled 'Bhūmija-prāsāda-lakṣaṇa, the 65th; has described three classes of these Prāsādas, (a detailed notice of which will form a sub-section of the subsequent chapter)—Niṣadha etc. four types of quadrangular temples, Kumuda etc. seven Vṛkṣa-jātīya temples, and Svastika etc. five Aṣṭaśāla temples. It further describes twenty-five varieties of Rekhā—a characteristic ornamentation in the super-structure of the Nāgara temples. All this supports the proposition as already indicated that this is a mixed style like Vesara. The material however, stands in the way of giving a definite location.

Lāṭa Style.

In the end something must be said about Lāṭa style. It is curious to note that the text does not mention this style at all. Scholars like Bhattacharya, locate the S. S. as the exponent of this style. In Agnipurāṇa the forty-five temples are said to be the specimens of this style. In the S. S. however, these forty-five varieties have been ramified into sixty-four varieties, having the basis of those of the Agnipurāṇa.

A fact of special notice in relation to the medieval temple architecture is this that the ancient 20 types of Nāgara temples as described in the Bṛhat-saṃhitā, Viśvakarma-prakāśa and Matsya-

purāṇa though retained in Samarāṅgaṇa also but their architectural details together with the decorations and ornamentations, layouts and super-structure, have given rise to the subtle details which characterise them as a great development in their art of architecture by this period, namely, eleventh century A. D. Thus not only these 20 types developed themselves but they gave rise to such a style known as Lāṭa style. Lāṭa is an ancient name of Gujrat. It is the country to the west of Vidarbha—Berar, the rich soil which many a beautiful temple in the eleventh century enriched. And these styles so much talked about in the contemporary books are only local or regional traits. That is, the characteristic features of the cultural contents of the region in which the temple buildings developed and got typified. The culture of the region—Deśa must influence and also predominate both over the body and the soul, that is, the shape, the super-structure and the deity of the Prāsāda. In this connection Varāhamihira's dictum regarding the dresses and the ornaments of the images is equally applicable in the evolution and development of the shape and super-structure of the temple. Thus the region and its culture must play an important role in determining the style of a particular temple. Thus the style to my mind is the sum total of both the physical and spiritual traits of the region in which a particular type of building is situated, whether it be a residence of God or that of a man together with the genius of the architect, the Sthapati which does not play a less important role. Samarāṅgaṇs very aptly says:—

पाचकः कटुतीक्ष्णाद्यैरनुसाररसैर्यथा ॥
अन्वीक्ष्य विपचेत् तद्वत् स्थपतिः सर्वमाचरेत् ।
यदुक्तं यदनुक्तं च तत् समग्रमपि स्फुटम् ॥
(युक्ता) युक्तं समालोच्य यथाशोभं समाचरेत् । स० सू० ५५.१९८-१९९

I have already pointed out that the Samarāṅgaṇa has treated practically all the styles but particular attention is invited to the treatment of the types of Prāsādas, e. g. in the chapter XLIX or more properly in Chap. LII, it is not the style but the type that has been glorified. Perhaps in those days some of the great temples had become types by themselves. This word 'type' I am using in the sense of a Jāti. The most conspicuous Jāti goes after a great temple of a great deity, such as, Vairāja and Meru Thus it isonly in a very brief outline that I have hinted at the basis of the classification of the temples in the S. S.

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CHAPTER V

PRE-SAMARĀṄGAṆA CLASSIFICATION OF TEMPLES

This subject of classification has received an expert treatment in works like Dr. Acharya's Encyclopaedia, Dr. Kramrisch's Hindu Temple and Dr. Bhattacharya's Canons of Indian Architecture. The last two scholars have also utilised the contents of the Samarāṅgaṇa Sūtradhāra in their respective ways. This chapter on the classification of temples as given in the pre-Samarāṅgaṇa works is like an epilogue to the classification of the Prāsādas as we find in this text of the Samarāṅgaṇa to be taken up in the next chapter. This comparative account can help us in determining the development of the Temple Architecture by the time of the Samarāṅgaṇa. But the literature on this subject being very vast, we have to choose only representative works from amongst the four classes of literature:—

A. Vāstu texts; B. Purāṇas; C. Āgamas and D. The Pratiṣṭhā and the Jyotiṣa works.

Again, according to our conclusions, that all the styles, schools and orders of Indian Architecture can be resolved into only two broad divisions of Nāgara and Drāviḍa, the others being only the respective ramifications of these two, we will have to assign different works to their respective schools. This has already been done in the first Part of this Study (vide Schools of Architecture). For the sake of brevity and concentration the following representative works of these two schools are being taken:

Northern School.	*Southern School*
A. *Śilpa Śāstra* Viśvakarma-prakāśa	C. *Agamas.* Suprabhedāgama
B. *Purāṇ* . (1) Matsya and (2) Agni.	D. *Pratiṣṭhā-granthas.* Iṣānaśivagurudeva-paddhati.

Selection of only these works from amongst manifold treastises on the subject needs clarification. Works like Mānasāra and Mayamata which are assigned to the southern school of Vāstu-vidyā (vide Part I, Chapter V) in my opinion (also vide

Part III classification of buildings), do not give exclusive classifications of temples. The classifications of buildings as given in these texts apply to all kinds of buildings—religious, residential and military (vide H. A. I. A. page 186). Hence I have left them out from my purview of the subject. Again works like Śilparatna have also been left out for the simple reason that they are not pre-Samarāṅgaṇa works. They are post-Samarāṅgaṇa ones Āgama works like Kāmika and Vaikhānasa together with the Atri-Saṃhitā have also been left out for the reason that these contain confused classifications. There is no clear cut temple-classification in them. Like Mānasāra and Mayamata they too do not draw a line of demarcation between the two sets of quite distinct and different buildings, namely temples and residential houses. Suprabhedāgama however, in my opinion, may be deemed to have preserved the primary norms of the temple classification in the southern part of the country. Īśānaśivagurudeva-paddhati, being the contemporary of the Sāmarāṅgaṇa is a bit more helpful in this respect. Hence it has been included in this list of the representative works of the southern school of Vāstu-vidyā. It may be noted, however, that it too like Atri-saṃhitā and others of the class gives an impression of being unmethodical, but never the less it has some of the development of the South Indian Temples, as I shall presently show.

As regards the Northern School, the Nāgara school, the accounts of Garuḍa and Agni Purāṇas being similar, only one has been chosen, and Agni in this respect is more helpful as we shall presently see. Similarly the accounts of Matsya and Bhaviṣya, as well as that of that famous semi-Purāṇa, Bṛhat-saṃhitā, to all intents and purposes are identical and hence only one of them is chosen, i. e. the Matsya-purāṇa, the pioneering Purāṇa to provide the Prāsādas an honoured place in the cultural history of this sacred land. The temples as they are classified in Viśvakarma-prakāśa, though they are identical with those of the Matsya, this work has been included in the list for the sake of the accredited place of the author in the Nāgara school of Vāstu-vidyā to which the Samarāṅgaṇa belongs, and also for the early nature of the work.

Now before proceeding with a critical estimate of the individual and other allied topics on classification of these works, let us first tabulate the temple types of the various classifications found in these representative works.

A—Southern

	Suprabhedāgama	*Īśānaśivagurudevapaddhati.* 1st	2nd.
1.	Meru	Meru	
2.	Mandara	Mandara	
3.	Kailāśa	Kailāśa	
4.	Nandyāvarta		
5.	Nalina		Nalina
6.	Pralīna		Pralīna
7.	Parvata		Parvatākṛti.
8.	Himavān		
9.	Śrīkara	Śrīkara	
10.	Mahendra	Mahendra	
11.	Śrīvarta		
12.	Nīla	Nīla	
13.	Niṣadha	Niṣadha	
14.		Vṛṣacchanda	
15.		Kumbha	
16.		Padmakānta	
17.		Garuḍacchanda	
18.		Haṁsacchanda	
19.		Merukūṭa	
20.		Kailāśakānta	Kailāśacchanda
21.		Jayāṅga	
22.		Vimala	
23.		Padmabhadra	
24.		Rudrakānta	Rudracchanda
25.		Skandakānta	
26.		Yogabhadra	
27.		Maṅgala	
28.		Vindhyacchanda	
29.		Vimalāṅga	
30.		Bhogichanda	
31.		Saumukhya	
32.		Śrīmaṇḍana	
33.		Lalitakānta	Lalitabhadra
34.		Śrīviśāla	
35.		Vijaya	
36.		Sudarśana	
37.		Jayamaṅgala	
38.		Citrakūṭa.	

Suprabhedāgam	*Īśānaśivagurudevapaddhati.* 1st.	2nd.
39.		Sarvatobhadra
40.		Caturmukha
41.		Viṣṇucchanda
42.		Hastipṛṣṭha
43.		Śivabhadra
44.		Śivacchanda
45.		Vṛttabhadra
46.		Aṣṭāṅga
47.		Śrīpratiṣṭhita
48.		Śrīkānta
49.		Śrīcchanda
50.		Saubhadra
51.		Svastika
52.		Samujjvala.

B—Northern

Matsya and Viśvakarma-Prakāśa	*Agni-Purāṇa*
	Group A (Vairāja) (*Square*)
Meru	Meru
Mandara	Mandara
Kailāśa	Vimāna
Vimānacchanda	Nandivardhana
Nandivardhana	Nandana
Nandana	Sarvatobhadra
Sarvatobhadra	Bhadra
Vṛṣa	Rucaka
Siṁha	Śrīvatsa
Gaja	
Kumbha	*Group B (Puṣpaka)*
Samudraka	(*Rectangular*).
Padma (Padmaka—V.P.)	Valabhī
Garuḍa (Suparṇa—V.P.)	Gṛharāja
Haṃsa	Mandira
Vartula	Brahma-mandira
Caturaśra	Bhuvana
Aṣṭāśra	Prabhava
Soḍaśāśra	Śivikā
Mṛga (Mṛgarāja—V.P.)	Śālā
	Viśāla.

Group C. (*Kailāśa*)
(*Circular*)
Valaya
Dundubhi
Padma
Mahāpadma
Vardhanī
Uṣṇīṣa
Śaṅkha
Kalaśa
Śrīvṛkṣa.

Group D (*Māṇika*)
(*Oval*)
Gaja
Vṛṣabha
Haṁsa
Garuḍa
Ṛkṣanāyaka
Bhūṣaṇa
Bhūdhara
Śrījaya
Pṛthivīdhara.

Group E (*Triviṣṭapa*)
(*Octagonal*).
Vajara
Cakra
Svastika
Vajrasvastika
Cakrasvastika
Khaḍga
Gadā
Śrīkaṇṭha
Vijaya.

Suprabhedāgama's classification, in my opinion represents the earliest form of the classification of temples in the South Indian Vāstuśāstras. In respect of brevity, explicitness, and precision, the Suprabhedāgama, which contains the smallest number of types, surpasses all; and it happens that smaller the types, better the description (vide H. A. I. & A—Dr. Acharya). Again it may be remarked that this Āgama also knew such a kind of classification of storeys which indicates the time when both the schools of Vāstu-vidyā were coming nearer to each other and the traditions of both, though different in the intial stage, were getting reconciled to evolve a composite style of Indian architecture. Dr. Bhattacharya surmises that this period lay between the 6th Century and the 10th Century A. D. (the time of the Samarāṅgaṇa). 'The Dravidian architecture was growing and the South Indian Vāstu-vidyā was also assuming a new form, different from the original texts of Maya, Nagnajit, Nārada and Parāśara etc., the natures of which are still unknown to us (cf. C. I. A. 146)'—and I fully agree with this remark of Dr. Bhattacharya for it corroborates my thesis that originally the building as described in the earlier works did not take into account the two classes of buildings—religious, (the temples) and residential (the houses). The ostentatious buildings called Vimānas served the model for the Prāsādas, the temples of gods

Īśānaśivagurudeva-paddhati's classification is more important as it is representative of three phases of temple-development in the South. It has described two groups of classifications—thirty-two types and twenty types. The Prāsādas like Meru, Mandara, Kailāśa, etc. (cf. Tabulation) in the former type of 32 represent the earlier classification, as some of them are identical with those described in

the Suprabhedāgama which I have taken as the earliest classification of two Drāviḍa temples.

The latter type of twenty Prāsādas (Nalinādi group) represents the latest phase of development before the time of the Samarāṅgaṇa and the third type (see Group C, as tabulated by Dr. Bhattacharya (—vide C. I. A.—339)—the last group, in my opinion, represents the confused tradition of the South when writers on the Vāstu-vidyā overlooked the two distinct and different classes of buildings—temple-buildings and the residential houses. In this respect it simply follows the tradition of Mayamata, Mānasāra and Atri-saṃhitā, the works belonging to Drāviḍa Vāstu-vidyā in which the buildings in general are classified.

Now before making any estimate of the classifications of the temples as we have seen in these two representative works of the Southern Vāstuvidyā, let us first give our thoughts to the two representatives of the Northern Vāstu-vidyā, the Matsya and the Agni Purāṇas. Among these works the Matsya is an earlier authority. The classification of Twenty Temples found in it (and also in B. S. and V. P.) represent the earliest classification of North Indian Vāstu-vidyā. The accounts of the temple architecture as these temples portray it, are indicative of high developments with super-structure of clusters of Śikharas together with the abundance of storeys and cupolas (Bhūmikās and the Śṛṅgas). Meru has 100 cupolas and 18 storeys. This characteristic of temple buildings in such an early age as first to sixth century A D (the time of Purāṇas like Matsya) is reminiscent of the ostentatious palaces as elaborately and profoundly described in the Epics more specially in the Rāmāyaṇa which are pre-Christian. These twenty temples described in earlier works of the Northern Vāstu-vidyā form the nucleus of a development of each variety and its ramifications into so many temple-varieties as we will see in the next chapter (vide classifications of temples in the S.S.).

I agree with Dr. Kramrisch's statement: "The twenty temples represent a liberal assortment of architectural shapes. A selection was made and five basic shapes were to ramify in several schools of medieval architecture, in fortyfive variations and also in different sets of sixtyfour shapes each"—H. T. p. 276.

Of the two variations hinted at in the previous quotation from Dr. Kramrisch, of these basic types of twenty temples, the former leads us to the classification of forty-five temples of the Agni-purāṇa (also see the similar list in Garuḍa-purāṇa). These temples represent a later development of the classification which reached its zenith in the eleventh century A. D., in the most representative work of the

period, the Samarāṅgaṇa Sūtradhāra (cf. the next chapter). According to Agni-purāṇa (CIV. II. b-21), Vairāja, Puṣpaka, Kailāśa, Māṇika, and Triviṣṭapa, are the Primary shapes of the temple. The first is square, the second rectangular, the third is round, the fourth eliptical and the fifth is octagonal. Each of them has 9 sub-varieties. So there are altogether fortyfive varieties. These Prāsādas as we have seen (vide Styles, chapter V of this Part) are the examples of the Lāṭa-style of architecture—a side development in the parent home of the primary style, the Nāgara.

From these different classifications as found in these representative works of both the schools of Indian architecture, we can form some tentative conclusions as to the indebtness of one to another. I have already propounded a thesis that Prāsāda Architecture owes its origin to the Vimāna class of buildings, most characteristic of the Drāviḍa Architecture. From the study of these classifications, besides the criterion of the storeys from one to twelve or sixteen storeys, the most predominent characteristic criterion of the classification of Dravidian temples, (which was a later tradition), there were certain other earlier methods of classification in which the names of temples and their number are more similar to those found in the northern works than to those in the other southern treatises (like Mayamata, Mānasāra etc.). The suprabhedāgama mentions twelve varieties of temples beginning with Meru, Mandara and Kailāśa etc.—the names mostly given after the the names of the mountains belonging to both the parts of the country —the North and the South. Meru is also the foremost among the twenty temples (cf. Matsya-Purāṇa). It is also the foremost of the thirty two types of Jātītar temples of the Southern school as represented in Īśānaśivagurudeva-paddhati. Again here, besides Meru, some of the twelve names of the Prāsādas as described in the Suprabhedāgama are also included in this list of 32 Prāsādas of I. G. P. Again as already mentioned, there is another class of temples, the twenty temples described in I. G. P. (vide Tabulation II), in which some of the names are similar to those of the Suprabhedāgama and some types are akin to those of the North Indian Temples as described in Matsya and Agni. Thus says Bhattacharya, "these works having three lists of South Indian Temples not only contain many names of North Indian Temples, but in the process of nomenclature also follow the north Indian method". As regards the dissimilar varieties and their nomenclature, they also (vide I. G. P. (c) and also those found in Atri Saṃhitā, Mānasāra and others of the group) indicate the later feature of the development of the Dravidian Temples.

CHAPTER VI

THE CLASSIFICATION OF TEMPLES AS GIVEN IN THE SAMARĀNGANA SUTRADHĀRA.

The classifications always have some basic principles. Either we classify Prāsādas according to the deities to be enshrined there in or according to the styles of the buildings—their layouts, shapes, superstructures and the crowns together with the decorations.

Thirdly, the classification may have for its basis, the materials of the temple, whether it is made of wood or brick or stone slabs or cloth. Similarly, it may be classified according to the situation, whether it is erected on a mountain or cut out of the rocks or is established on the plains, the specimens of which are all described together, in this monumental work. In chapter XLIX the work describes the Prāsādas which are to be built in the towns. They are to be built of stones and baked bricks. Again in chapter LIX details are given of the wood temple Harmya, the rock cut temple 'layana' (specimens of which are the crowning achievements of the Indian architect in the monumental cave temples at Ellora and Ajanta) and the cloth made temples 'Pattiśa'. Again a word on the criterion of the deities may be added here. In the Samarāṅgaṇa at more than one place this criterion has been adhered to. At the very outset, in the beginning of chapter XLIX we find the genesis of the temples, the Prāsādas, from the Vimānas has been proclaimed in relation to the respective deities and with their favourite shapes. Similarly, in the chapters entitled, 'Prāsādastavana' and 'Vimānādicatuṣṣaṣṭhiprāsāda—the 58th and the 59th, we find this criterion more pronouncedly worked out. Śiva, Viṣṇu, Brahmā, Sūrya, Caṇḍikā, Vināyaka, Lakṣmī and Sarvadevas, i.e., the common mass of the divinity have each eight Prāsādas, as their favourite ones making a total of 64.

Fourthly, it may be pointed out on the other hand that in the works belonging to the southern school of Indian Architecture, specially Mānasāra the most prominent criterion of the classification is the number of the storeys, which a temple is made of. In the Samarāṅgaṇa also the same criterion is adhered to. It contains a chapter entitled 'Pīṭhapañcaka-lakṣaṇa' the 61st (cf. the 62nd also) and most curiously enough at the very beginning it is said that the Drāviḍa temples may consist of storeys from 1 to 12 in number and then the

temples are classified according to their number of storeys. This is exactly what has been done by all the southern texts.

Though there is no clear-cut criterion for the classification of temples in the text, it would not be unwarranted to bring the following categories of classification of the temples with types and groups:—

Group A.	Early Lāṭa Style.	
I Type	Pillared Hall Temples (The Chādya Prāsādas).	Rucaka etc. 64 Prāsādas (XLIX Chapter).
II Type	Super-structure with Śikhara and the most characteristic feature being the Aṇḍakas—cupolas from 1 to 100–Prāsādarāja Meru having one hundred ones.	Indicated first in Ch. 52 (Vairāja-jāti Prāsādas–the eight-fold Śikharottama Prāsādas) and developed in Ch. 56—Another variety of Rucaka etc. 64 temples.
III Type	Super-structure with storeys having the specific dedication to the deities—Śiva, Viṣṇu, Brahmā, Sūrya, Caṇḍikā, Lakṣmī, and Sarvadevas—all gods—each one of these having eight Prāsādas.	Chapters 58 and 59.
Group B.	**Later Lāṭa Style.**	
	Ornamental Style—having Śṛṅgas and storeys and of great religious merit (vide Appendix–Qs.)–the noblest and the grandest of the Prāsādas.	(i) Meru etc. 16 varieties. (ii) Meru etc. 20 varieties. (iii) Śrīdhara etc. 40 Prāsādas of pure variety. (iv) Nandana etc. 10 variety of mixed type (vide chs. 55 and 57).
Group C.	**Nāgara Style.**	
	The Traditional List.	(i) Meru and others—the traditional list of the twenty Prāsādas found in almost all early texts of northern Vāstu-vidyā-Matsya, Viśva. P. etc. (vide chapter 63). (ii) Śrīkūṭa etc 36 Prāsādas in six Saṭkas (vide chapter 60).

Group D.	**Dravidian Style.**	
	One to twelve storeyed temples with five-fold terraces and talacchandas.	(chapters 61 and 62).
Group E.	Regional styles with characteristics of both Nāgara and Dravida.	
I Type	Vāvāṭa (Vairāṭa).	(chapter 64).
II Type	Bhūmija.	
	(a) Quadrangular 4 varieties (Mountain Varieties).	(chapter 65).
	(b) Vṛkṣa jātis, Kumuda etc. 7 varieties.	Do.
	(c) Svastika etc. five Aṣṭaśāla varieties.	Do.

With this much of introductory remarks and the grouping of the Prāsādas at a glance, we are now better fitted to take into account the classification of temples as given in the Samarāṅgaṇa Sūtradhāra.

Group A. (Early Lāṭa Temples).

The classification is based on a typical shape typified in a particular temple. We have already seen the classification of Agnipurāṇa having five classes of typical shapes with a number of varieties forming that class. From the five Vimānas on which the Gods travel in the air and from five temple shapes built in their likeness, Agnipurāṇa derived forty five varieties of temples—square, rectangular, circular, elliptical and octangonal, nine of each kind.

The Samarāṅgaṇa Sūtradhāra (ch. XLIX) from the self same five shapes of Vimānas, derives sixtyfour kinds of temples, Vairāja the square one, having twenty four varieties and Kailāśa and others having ten varieties each. They are to be built in towns and made of stone or burnt brick and this indicates that they belong to Nāgara style; but as I have already enunciated that they belong to Lāṭa style which is a branch of the all-pervading and universal style—the Nāgara. As the text definitely mentions this style in connection with the "twenty temples", the traditional temple types of Nāgara style, I have grouped these under Lāṭa (the early phase) style. Agni-purāṇa a pre-Samarāṅgaṇa source, calls these Prāsādas as specimens of the Lāṭa, and they are fortyfive in number, but the Samarāṅgaṇa Sūtradhāra

makes them sixtyfour as we can see them at a glance tabulated hereunder:—

The Rucaka etc. 64 Temples.

I. Type. *Vairāja—the Square* (Vimāna of Brahmā).

1. Rucaka
2. Siṃhapañjara
3. Citrakūṭa
4. Bhadra
5. Śrīkūṭa
6. Uṣṇīṣa
7. Śālāgṛha
8. Gajayūthapa
9. Nandyāvarta
10. Avataṃsaka
11. Svastika
12. Kṣiti-bhūṣaṇa
13. Bhūjaya
14. Vijaya
15. Nandī
16. Śrītaru
17. Pramadāpriya
18. Vyāmiśra
19. Hastijātīya
20. Kubera
21. Vasudhādhara
22. Sarvatobhadra
23. Vimāna
24. Vimukta-koṇa.

II. Type. *Kailāśa—The Circular* (Vimāna of Śiva)

1. Valaya
2. Dundubhī
3. Prānta
4. Padma
5. Kānta
6. Caturmukha
7. Maṇḍūka
8. Kūrma
9. Tālīgṛha
10. Ulūpī.

III. Type. *Puṣpaka—the Oblong.* (Vimana of Kubera).

1. Bhava
2. Viśāla
3. Sāṇmukhya
4. Prabhava
5. Śibirāgṛha
6. Mukhaśāla
7. Dvisāla
8. Gṛharāja
9. Amala
10. Vibhu.

IV. Type. *Māṇika—The Elliptical.* (Vimāna of Varuṇa).

1. Āmoda
2. Raitika
3. Tuṅga
4. Cāru
5. Bhūti
6. Niṣevaka
7. Niṣedha
8. Siṃha
9. Suprabha
10. Locanotsava.

V. Type. *Triviṣṭapa—The Octagonal.* (Vimāna of Indra or Viṣṇu)

1. Vajraka
2. Nandana
3. Śaṅku
4. Mekhala
5. Vāmana
6. Laya
7. Mahāpadma
8. Haṃsa
9. Vyoma
10. Candrodaya

Now if we just compare the two lists—45 temples of Agni and 64 temples of Samarāṅgaṇa Sūtradhāra, we find that though the shape of their horizontal sections together with their proto-types in heaven remain the same, the number and the arrangement, have undergone a change The Square varieties have increased beyond proportion from nine to twentyfour, though others are stationary. Similarly certain temples in the list of Agni have assumed another shape in the list of Samarāṅgaṇa Sūtradhāra, e g Haṃsa elliptical is octagonal here; Mahāpadma circular is also octagonal here. Meru, the most prominent temple type is conspicuous by its absence here in this list; though the author of Samarāṅgaṇa Sūtradhāra has bestowed the higest extollation on the Prāsādarāja Meru in other lists not once but several times, as we shall presently see.

These remarks were necessitated for the reason that these temples had their link in the literature (cf. Agnipurāṇa, Garuḍa-purāṇa and Hayaśīrṣa-Pañcarātra). Let us now proceed further.

II. Type.

I have already indicated in the preceding pages that some of the temple types were so much renowned that they stood as proto-types for others. Vairāja is such a type which gave rise not only to the twenty four varieties of Hall Temples with the super-structure of double or triple (even further that cf. 49th Chapter) roofs, but it served as a proto-type to the temples having curvilinear super-structure—the Śikhara and the eight superior varieties of this class of temple are Rucaka, Vardhamānaka, Avataṃsa, Bhadra, Sarvatobhadra, Muktakoṇaka, Meru and Mandara (vide S. S. Chapter 52. 21-22), These eight pristine varieties of this type ramified in my opinion in another Rucaka etc. 64 temples as tabulated here under were as many as of four classes: twenty five varieties of Lalita (is it for Lāṭa?). nine varieties of Miśraka (the mixed); twenty five again of Sāndhāra Prāsādas and lastly, the five-fold Nigūḍha Prāsādas—vide chap. 56. It is difficult to say what the Nigūḍha indicates.

I. Group. 25 Lalita Prāsādas.

1.	Rucaka	Square	8.	Dharādhara	Square
2.	Bhadraka	,,	9.	Vardhamāna	,,
3.	Haṃsa	,,	10.	Adrikūṭa	,,
4.	Haṃsodbhava	,,	11.	Śrīvatsa	,,
5	Pratihaṃsa	,,	12.	Trikūṭaka	,,
6.	Nanda	,,	13.	Mukta-koṇa	,,
7.	Nandyāvarta	,,	14.	Gaja	,,

15. Garuḍa ,,
16. Siṃha ,,
17. Bhava - Rectangular
18. Vibhava ,,
19. Padma Circular
20. Mālādhara ,,
21. Vajraka Eight-sided
22. Svastika ,,
23. Śaṅku ,,
24. Malaya ,,
25. Makaradhvaja ,,

II. Group Nine Mixed Varieties

1. Subhadra
2. Yokiṭa
3. Sarvatobhadra
4. Siṃha-kesarī
5. Citra-kūṭa
6. Dharādhara
7. Tilaka
8. Svatilaka
9. Sarvāṅga-sundara.

III. Group. 25 Sāndhāra Prāsāda

1. Kesarī
2. Sarvatobhadra
3. Nandana
4. Nandiśālaka
5. Nandīśa
6. Mandira
7. Śrīvṛkṣa
8. Amṛtodbhava
9. Himavān
10. Hemakūṭa
11. Kailāśa
12. Pṛithivījaya
13. Indranīla
14. Mahānīla
15. Bhūdhara
16. Ratnakūṭaka
17. Vaiḍūrya
18. Padmarāga
19. Vajraka
20. Mukuṭotkaṭa
21. Airāvata
22. Rājahaṃsa
23. Garuḍa
24. Vṛṣabha
25. Meru (Prāsādarāja)

IV. Group 5 Nigūḍha Prāsāda.

1. Latā
2. Tripuṣkara
3. Pañcavaktra
4. Caturmukha
5. Navātmaka

N. B. The chief characteristics of the twenty five varieties of temples, as already hinted at, are the applications of abundant cupolas in them from one to one hundred Meru the Prāsāda-raja has as many as one hundred cupolas.

III. Type.

This group of sixty four Prāsādas is so diverse in their individual types (cf. Layana, Paṭṭiśa, etc.) that a definite location to them is unwarranted. The text does not say anything regarding their style. It only says that these are the Prāsādas given by Brahmā, the Primordial Greator to the Primordial Architect, Viśvakaramā, and lays down a definite dedication of these to the particular deities. Their early origin, therefore, is beyond doubt and accordingly in my opinion, that may be regarded as representing a mixed style to which Drāviḍa and

Nāgara both have contributed. More so of their varieties are simil to those found in the Southern texts like I. G. P. (cf. Nalina et The reason, why I have placed them under Lāṭa Style is their orn mental super-structure together with some of these varieties bei common to the 45 varieties of Agni-purāṇa. More fittingly the Prāsādas are Sārvadeśika in nature (cf. Kāmikāgama).

I. Group—8 *Prāsādas of Śiva*
1. Vimāna
2. Sarvatobhadra
3. Gajapṛṣṭhaka
4. Padmaka
5. Vṛṣabha
6. Mukta-koṇa
7. Nalina
8. Drāviḍa

II. Group—8 *Prāsādas of Viṣṇu.*
1. Garuḍa
2. Vardhamāna
3. Śaṅkhāvarta
4. Puṣpaka
5. Gṛharāja
6. Svastika
7. Rucaka
8. Puṇḍra-vardhana.

III. Group—8 *Prāsādas of Brahmā.*
1. Meru
2. Mandara
3. Kailāśa
4. Haṃsa
5. Bhadra
6. Uttuṅga
7. Miśraka
8. Māladhara.

IV. Group—8 *Prāsādas of Sūrya (The Sun).*
1. Gavaya
2. Citrakūṭa
3. Kiraṇa
4. Sarvasundara
5. Śrīvatsa
6. Padmanābha
7. Vairāja
8. Vṛtta.

V. Group—8 *Prāsādas of Caṇḍik*
1. Nandyāvarta
2. Valabhya
3. Suparṇa
4. Siṃha
5. Vicitra
6. Yogapīṭha
7. Ghaṇṭānāda
8. Patākī.

VI. Group—8 *Prāsādas of Vināy*
1. Guhādhara
2. Śālāka
3. Veṇubhadra
4. Kuñjara
5. Harṣa
6. Vijaya
7. Udakumbha
8. Modaka.

VII. Group—8 *Prāsādas of Lakṣm*
1. Mahāpadma
2. Harmya
3. Ujjayanta
4. Gandhamādana
5. Śataśṛṅga
6. Anavadyaka
7. Suvibhrānta
8. Manohārī

VIII. Group—8 *Prāsādas common all deities.*
1. Vṛtta
2. Vṛttāyata
3. Caitya
4. Kiṅkiṇī
5. Layana
6. Paṭṭiśa
7. Vibhava
8. Tārāgana.

Group B. Later Lāṭa Style.

I. Type—*Meru etc., 16 Varieties*

1. Meru
2. Kailāśa
3. Sarvatobhadra
4. Vimānachhanda
5. Nandana
6. Svastika
7. Mukta-koṇa
8. Śrīvatsa
9. Haṃsa
10. Rucaka
11. Vardhamāna
12. Garuḍa
13. Gaja
14. Siṃha
15. Padma
16. Valabhī

II. Type—*Meru etc. 20 Prāsādas.*

1. Meru
2. Mandara
3. Kailāśa
4. Triviṣṭapa
5. Prithivījaya
6. Kṣitibhūṣaṇa
7. Sarvatobhadra
8. Vimāna
9. Nandana
10. Svastika
11. Mukta-koṇa
12. Śrīvatsa
13. Haṃsa
14. Rucaka
15. Vardhamāna
16. Garuḍa
17. Gaja
18. Siṃha
19. Padmaka
20. Nandivardhana.

III. Type—*Srīdhara etc. 40 Prāsādas of Pure Varieties.*

Favourite to Bhagavatī.

1. Srīdhara
2. Hemakūṭa
3. Subhadra
4. Ripukesarī
5. Puṣpaka
6. Vijayabhadra
7. Śrīnivāsa
8. Sudarśana
9. Kusumaśekhara.

Favourite to Śiva.

10. Surasundara
11. Nandyāvarta
12. Pūrṇa
13. Siddhārtha
14. Śaṅkhavardhana
15. Trailokya-bhūṣaṇa.

Favourite to Brahmā.

16. Padma
17. Pakṣabāhu
18. Viśāla
19. Kamalodbhava
20. Haṃsadhvaja.

Favourite to Viṣṇu.

21. Lakṣmīdhara
22. Mahāvajra
23. Ratideha
24. Siddhakāma
25. Pañca-cāmara
26. Nandighoṣa
27. Anukīrṇa
28. Subhadra
29. Surānanda
30. Harṣaṇa
31. Durdhara
32. Durjaya
33. Trikūṭa
34. Navaśekhara
35. Puṇḍarīka
36. Sunābha
37. Mahendra
38. Śikhiśekhara
39. Vārāṭa
40. Sumukha.

IV. Type—*Nanda etc. 10 Mixed Varieties.*

1. Nanda
2. Mahāghoṣa
3. Vṛddhirāma
4. Vasundhara
5. Mudgaka
6. Vṛhacchāla
7. Sudhādhara
8. Saṃvara
9. Śukanibha
10. Sarvāṅgasundara

N. B, The 57th chapter is not only incomplete but seems to be mis-arranged (vide reconstructed scheme of Samarāṅgaṇa Sūtradhāra).

Group C. Nāgara Prāsādas.

I. Type—*The twenty temples, the Traditional Nāgara Prāsādas.*

1. Meru
2. Mandara
3. Kailāśa
4. Kumbha
5. Nagarāja
6. Gaja
7. Vimānacchanda
8. Caturaśra
9. Aṣṭāśra
10 Soḍaśāśra
11. Vartula
12. Sarvabhadraka
13. Siṃhāsya
14. Nandana
15. Nandivardhana
16. Haṃsaka
17. Vṛṣa
18. Garuḍa
19. Padmaka
20. Samudra

II. Type—Śrīkūṭa *etc. the 36 Temples.*

Group (a) Śrīkūṭa *etc. an aggregate of six.*

1. Śrīkūṭa
2. Śrīmukha
3 Śrīdhara
4. Varada
5. Priyadarśana
6. Kulānanda.

Group (b) *Antarikṣa etc. an aggregate of six.*

1. Antarikṣa
2. Puṣpābhāsa
3. Viśālaka
4. Saṅkīrṇa
5. Mahānandī
6. Nandyāvarta.

Group (c) *Saubhāgya etc. an aggregate of six.*

1. Saubhāgya
2. Vibhaṅgaka
3. Vibhava
4. Vībhatsa
5. Śrītuṅga
6. Mānatuṅga

Group (d) *Sarvatobhadra, etc. an aggregate of six.*

1. Sarvatobhadra
2. Vāhyodara
3. Niryūhodara
4. Bhadrakoṣa
5. Samodara
6. Nandibhadra.

N. B. The lakṣaṇas of last two varieties are missing.

Group (e)—*Citrakūṭa etc. an aggregate of six.*

1. Citrakūṭa
2. Vimala
3. Harṣaṇa
4. Bhadra-saṅkīrṇa
5. Bhadra-viśālaka
6. Bhadra-viṣkambha

Group (f)—*Ujjayanta etc. an aggregate of six.*

1. Ujjayanta
2. Meru
3. Mandara
4. Kailāśa
5. Kumbha
6. Gṛharāja.

N. B. All these varieties again having superior, medium and inferior, the three qualities result in as many as one hundred and eight (S. S. Chapter 60.91-92).

We have already taken notice of these twenty temples, common to all ancient sources like Viśvakarma-prakāśa, Matsyapurāṇa, Bṛhatsaṃhitā and Bhaviṣya-purāṇa. The Samarāṅgaṇa-sūtradhāra, the most representative work of the Hindu science of Architectuɹe, while developing these Prāsādas on the characteristic style of the age, the Lāṭa Style, does assign to these twenty temples, the traditional types of the Nāgara style, a separate place in its contents on the Prāsāda-vāstu. The second variety of these Nāgara Prāsādas are' in my opinion, the minor types which grew in the country-side rather than in the town, the shrines of the Pañcāyatana classes of temples.

Group D. Dravida Prāsādas.

N.B. In this group no specific designation is made of the Drāviḍa Prāsādas, their classification is made acccording to the number of the storeys they take, e. g.,

1. Ekabhūmika
2. Dvibhūmika
3. Tribhūmika
4. Caturbhūmika
4. Pañcabhūmika
6. Saḍbhūmika
7. Saptabhūmika
8. Aṣṭabhūmika
9. Navabhūmika
10. Daśabhūmika
11. Ekādaśabhūmika
12. Dvādaśa-bhūmika.

with the exception that their terraces and Ṭalacchandas of the Prāsādas are classified in the following designations :—

Five-fold Pīṭhas.

1. Padabandha
2. Śrībandha
3. Vedībandha
4. Pratikrama
5. Kṣurabandha

Five-fold Talacchandas.

1. Padmatalacchanda
2. Mahāpadmacchanda
3. Vardhamānacchanda
4. Svastikacchanda
5. Sarvatobhadra.

N. B. They can be both Sāndhāra and Nirandhāra i. e. having circum-ambulatory passage alround and having no such passage.

Group E. Regional Styles, The mixed ones

1. **Vāvāṭa Prāsādas**
   (*Digbhadra etc. 12 temples*).
   1. Digbhadra
   2. Śrīvatsa
   3. Vardhamāna
   4. Nandyāvarta
   5. Nandi-vardhana
   6. Vimāna
   7. Padma
   8. Mahāpadma
   9. Śrīvardhamāna
   10. Mahāpadma
   11. Pañcaśāla
   12. Pṛthivījaya.

2. **Bhūmija, Prāsādas.**

I. Type—*Niṣadha etc. four temples (Square)*
   1. Nisadha
   2. Malayādri
   3. Mālyavān
   4. Navamālikā.

II. Type—*Vṛkṣajāti.*
   (*Kumuda etc. 7 temples.*)
   1. Kumuda
   2. Kamala
   3. Kamalodbhava
   4. Kiraṇa
   5. Śataśṛṅga
   6. Niravadya
   7. Sarvāṅgasundara.

III. Type—*Aṣṭaśāla* (*Svastika etc five Temples*).
   1. Svastika
   2. Vajrasvastika
   3. Harmyatala
   4. Udayācala
   5. Gandhamādana.

This classification of the temples is really a very fascinating topic of Indian architecture. Full justice can not be done to it in the limited space available. Each of these temples really represents a type by itself. Their evolution and development are represented in the different classes as we have seen above. The same names are repeated several times. What does it indicate? A temple or a house or any building is after all an output of the architectural craftsmanship. A temple built in a particular region by a particular architect with a particular material must be different from a temple built in another region by another architect with different material available in that particular region. Hence in order to show the characteristic trait of the these different centres of art, the nomenclature is kept intact, so that when a particular type of temple is viewed from the standpoint of different stylistic specimens, it may show its different evolution in the history of art. All these temple types, therefore, need to be worked out, not only with their characteristic evolutions but also be distinctly drawn with sketches and fully explained in

their respective individual measurements, component parts, superstructures, ornamentations and dedication etc. I, therefore, intend to bring out a subsequent volume in which, as indicated before (cf. Classifications of Houses Part III) both the classes of buildings, residential houses and temples will be dealt with from this point of view.

Now let me look to the classification of temples of the Samarāṅgaṇa. Though this classification shows as many as three hundred and seventy five varieties of temples, nevertheless, if sorted out, all this comes to a total of more than 500. Even then the Samarāṅgaṇa has the credit of providing the fullest, longest and the grandest classification ever made in any manual of the Vāstu-śāstra. Thus while Suprabhedāgama contains twelve names, the Śilparatnam and the Īśānaśivagurudevapaddhati contain twenty in one list and thirtytwo in another. The Mayamatam contains fortyfive names and indicates existence of many other not mentioned (it gives classification only upto four-storeyed mansions). The Mānasāra contains names of ninetyeight buildings (either they may be taken as temples or many storeyed mansions for the princes or the wealty people). The Atrisaṃhitā, another valuable work on the South Indian Vāstuvidyā also does not go beyond ninety six varieties. Samarāṅgaṇa, therefore, from this point of view has classified practically all classes of temple types then known and exhausted all the styles and all the specifications of dedication and other allied topics of the temple architecture. Thus viewed from this angle, its unipue place in the literature goes without saying.

CHAPTER VII

PLANNING OF PRĀSĀDA, THE HINDU TEMPLE.

In previous pages while dwelling at length upon the doctrine of Pada-vinyāsa in Hindu Architecture, the classification of buildings in general, the classification of Prāsādas in particular as well as the origin and development of the Prāsāda-vāstu, side-lights have already been thrown on many of the topics of this chapter. It is however, incumbent upon me to deal with the most important topic of the Hindu Temple in detail in order that much that is still hidden, may come to the surface.

(a) Significance.

It is from two points of view that we have to understand the significance of Prāsāda, the Hindu Temple. From the purely architectural point of view, it relates to the character of the building of the Prāsada. This character, however, is only an outer manifestation of the real significance, a label, a trademark, as it were. We have to go deeper to find out its real significance. It relates to the religious background with meta-physical implication.

Man has never lived without some faith in the man 'Supernal'. Material and spiritual advancements of mankind have been going on since the very birth of human civilisation. In India, this faith in the man 'Supernal' has culminated in the towering personality of the Hindu Temple, the Prāsāda. Each and every detail, right from its layout to the finial speaks of the significance. Popularly the Prāsāda is the seat and dwelling of God. But metaphysically it is the concrete manifestation of the Supreme Reality. It is microcosmic representation of the macrocosmic Brahman. Agni Purāṇa (LXI-25) says. "The body (Ākṛti) of the temple is Prakṛti". The architectural motif of Āmalaka, the crown of the Nāgara temple, the most representative shape of Hindu Temple, as well as the finial (Stūpikā cf. Drāviḍa Temple) above Kalaśa are all aglow with the divine significance and full of metaphysical, the spiritual meaning. Samarāṅgaṇa Sūtradhāra designates this term with Āmalāsāra (chapter LVI. 49, 154 etc., where Āmalāsāraka is used as synonymous with Āmalaka). It means Pure essence. The Hindu Trinity—Brahmā, Viṣṇu and Maheśa, is symbolised by the Amalaka. The The Skanda purāṇa (V. K. XII. 9-23) says, 'Viṣṇu is seated at its

bottom, Brahmā above and Śiva still higher. The sun is in its branches, the gods are in their ramifications and on its leaves, flowers and fruits. It is thus the support of all gods. "The Āmalaka, tree of manifested deity, redeeming, supernal tree, has contributed to the temple the image of its fruit" (H. T. 356). This is the significance of the Hindu Temple, the Prāsāda as indicated by one motif; others (cf. the manifold designations with similar implication, viz. Veṇukoṣa, Aṇḍa etc. etc.) also tell the same story. The significance of the Prāsāda will be clearer when we take the topic of the Vāstu-maṇḍala and Vāstu-puruṣa. We have already hinted at this significance as inferred from the main parts of the temple—the Pillar, the Garbhagṛha and the Jagatī (vide Origin and Development of the Prāsāda-vāstu).

(b) Purpose.

The construction of a temple is a virtuous act. All virtuous acts are fully rewarded. The four-fold purpose of human life—the four Puruṣārthas—Dharma, Artha, Kāma and Mokṣa are attained only by good deeds. Temple building is one of such good deeds. Before the Pauranic Dharma had its sway, the performance of sacrifice was deemed the most virtuous act. Everything-progeny, cattle, wealth and even over-lordship could be procured by the performance of sacrifices; the main purpose however, was entering into heavens—the blissful and everlasting life, beyond this ephemeral one, — "Svargakāmo yajet". This is what we understand by the doctrine of Iṣṭi. The Pauranic Dharma, the later phase of Hinduism enunciated or rather added another doctrine as a complementary to the former one called Pūrta (cf. Hema-Chandra's definition). This doctrine of Pūrta though it consists in the construction of tanks, wells, lakes and houses of gods, the Temple-building over-shadowed them all. We can coin a new aphorism in place of "Svarga-kāmo yajet"—"Svargakamo mandiram kārayet", Indian architecture being essentially religious in nature, the acts and rites in building the temple are sacrificial in nature. The builder of a temple is called Yajamāna, and the architect, the Sthapati, master mason has to be assisted by the Sthāpaka, the Ācārya, the priest.

The Samarāṅgaṇa, reads like a Purāṇa, especially on Temple Architecture. I have already hinted at its sayings of this nature to be gathered in a separate appendix. In these sayings the purpose of not only temple building in general but a temple type like Meru etc. in particular is fully brought out.

Throughout the ages, the Hindu Temple has been built with fervour of devotion, the Bhakti, as a work of offering and pious liberality,

in order to secure for the builder a place in heaven. Hindu Temple is a Tīrtha made by art. Darśana, the looking at the temple, the seat, abode and body of divinity and its workship—pūjā, are the purposes of visiting the temple which in their turn are amply rewarded (see Qs.).

(c) **Sthapati and Sthāpaka (Kartṛkārakavyavasthā).**

A good deal has already been written on the Sthapati (vide chapter 3rd, Part I). Here, therefore, only a bare mention of him need be made in relation to the Sthāpaka who too has been referred to several times. Though I have said before that for the secular planning the Sthapati is the sole authority, the temple building can not start without a Sthāpaka. The Sthapati, the foremost of the craftsmen, carries out the instruction of the Sthāpaka, the architect priest, the Ācārya. According to Āpastamba Śrauta Sūtra (XXII-7.6) Sthapati designates the Yajamāna, the sacrificer who is to be consecreted as priest. As builder of Hindu Temple, the Sthapati, by his special knowledge guided by Sthāpaka, the Ācārya, is competent to act for his patron, the Yajamāna. In Samarāṅgaṇa (LVI. 303) the patron or the donor of the temple is also designated as Kāraka, who makes the architect, the Kartṛ, do the work.

Śilpa-ratna (I. 29-42) describing in detail the qualifications of the architect, the Sthapati, and the architect-priest, the Sthāpaka, directs that the temple, begun by these two, should be continued by them only and by no other. In their absence the work should be done by their competent sons or disciples.

In the building of Hindu Temple, the trinity of Sthapati, Sthāpaka and Yajamāna, the patron is indispensible. The descent of the Vāstu Puruṣa, in which the patron, the Yajamāna, is brought into communion with the Vāstu-puruṣa together with the Vāstuśānti so essential before beginning the building activity, all these three collaborate to produce the marvel on earth to evolve a concrete manifestation of what is unmanifested.

This architectural trinity has its proto type, the real trinity of Brahmā, the Sthapati, Viṣṇu, the Yajmāna and Rudra the Sthāpaka (I. G. P. IV. Ch. XXXIV and Mayamata XVI.159-161).

As in the beginning, the descent, so also at the completion of the temple building, the ascent, a symbolic rite, called Aṅkurāropaṇa (I. G. P. IV. Ch. XXXIV. 27; Kāmikāgama LXI. 3; Mayamata XVIII. 166) is performed, in, the end of which, the Sthāpaka installs the Prāsāda, in its concrete shape (Prāsāda-mūrti) on its altar or pedestal,

(Dhiṣṇya-mūrti) and places in it the seed (bīja) of the temple. After the consecration of the Temple and the installation of the Image—the Prāsāda-mūrti, by the Sthāpaka the guru, the Yajamāna, the sacrificer, the patron, the donor of the temple presents gold, clothes, ornaments etc., to the Sthāpaka and Sthapati according to his ability. The Samarāṅgaṇa Sūtradhāra also in its 37th Chapter (32-37) hints at this tradition of old. It says, 'the Sthapati should be worshipped, because his worship is the worship of Viśvakarmā himself—the primordial Architect. Similarly, the Purohita, Sāṃvatsara and also the Parikarmakaras, the other masons and the labourers should also get honour and rewards so that they are fully pleased'.

With this traditional background of the Sthapati, the Sthāpaka and the Yajamāna, let us come down to the Kartṛ-kāraka-vyavasthā as has been enjoined by the Samarāṅgaṇa in case of certain representative temple types (S. S. LVI. 36-43).

The praise of the temple-type Meru, the Prāsādarāja in the pages of Samarāṅgaṇa is simply supreme. It is in relation to this temple, the common abode of all deities that the text says that only a Kṣatriya can be its patron—the donor and a Vaiśya, an architect. Thus built, both of them, enjoy the fruits of their work. If contrary to this, a Kṣatriya, however skilled in the knowledge of the Vāstuśāstra, assumes the role of its architect, he looses his virtue—moral and physical both. Similarly, a Brāhmaṇa however competent he may be, if he is the architect of the temple Meru, he and his patron both suffer equally and such a production is not to be welcomed.

(d) Vāstu-maṇḍala and Vāstu-puruṣa

Both these topics are inter-related and complimentary to each other, and, therefore, a composite name Vāstu-puruṣa-maṇḍala would be more appropriate. The drawing of the square plan, of the Vāstu-puruṣa-maṇḍala is deemed imperative prior to building a temple. As already mentioned (vide Chapter III, Part I), according to Samarāṅgaṇa, the knowledge of its meaning and execution is the first discipline which the architect must master (cf. S. S. 45-2).

At the height of the temple building activity in India about the time of the Samarāṅgaṇa, drawing of the Vāstu-puruṣa-maṇḍala together with so many other rites, seems to be the rule. Though the temple building was an outcome of the Pauranic Dharma in relation to the Bhakti cult, the Vedic rites did not loose their importance. They introduce and accompany the building of the temple. They were so stereotyped that the medieval text did not elaborate them. All these

rites viz. Purification etc. though forming the very fundamentals of the temple building and its consecration and the installation of the image therein, however, had lost much of their charm. They were simply rituals as is the case these days. This also suggests the beginning of the secular architecture of which Samarāṅgaṇa is the founder, and the most representative work among the Indian Vāstu texts.

All these topics have been dealt with in a masterly way in 'Hindu Temple' by Dr. Kramrisch, where all the available material on the subject, has been utilised and a most authoritative and traditional exposition given. The special feature, however, of the treatment of this topic in the Samarāṅgaṇa is that the fortyfive gods as the constituents of the different limbs in the body of the Vāstu-puruṣa (S. S. chapter eleven 1-14) have found a slightly divergent exposition, indicative of the fact that the star gods form one, and presumably the more ancient series in the border of the Vāstumaṇḍala and the Padadevatās invariably talked of in every manual, are but loosely connected with the stars. Their real significance has been propounded in detail here in this text (vide S. S. Chap. XII).

The conception of the Vāstu-puruṣa and the Square-plan as the fundamental form of the Indian Architecture, both these topics have been briefly expounded in a previous part (Part 1. chap. VI). Particular attention however, is again drawn to the fact that in this treatise the Paramaśāyika plan of eightyone squares or the Maṇḍūka of the sixtyfour squares, the two traditional plans for temples, have not been adhered to. The Samarāṅgaṇa Sūtradhāra (vide chapter XIII) assigns to all kinds of Prāsādas and Maṇḍapas, the Vāstu of 100 squares and the Vāstu of 64 squares to camps of kings (Śibiras) villages, hamlets and cities (ibid 4-5). The Paramasāyika plan of 81 squares is, in the opinion of the Samarāṅgaṇa Sūtradhāra (ibid 3), reserved for the palaces of Rajas and for the Indrasthāna, the temple of Indra (Indra, symbolic of Indian Royalty).

Lastly, as already hinted at (vide Padavinyāsa, Part I), special credit goes to the author of this work in the respect that it speaks of circular Vāstu of 64 and 100 squares to be used in circular shrines (XII. 13).

"The ground plan of the temple, whatever may be its variations, is analogous to the Vāstupuruṣamaṇḍala and retains in its rhythmic order proceeding from the centre and in the modulations of its perimeter, the knowledge of the Vāstupuruṣa in all his parts. The rhythm (chandas) of the ground plan is derived from the order in the

Vāstuamaṇḍala. The relation of sacred architecture to the Vāstu-puruṣamaṇḍala is reflected moreover in the sculptures on its walls; their iconography is essentially an iconometry (Tālamāna)"—H T. page 80.

(e) **The material and the Measurements.**

(i)—**Materials.**

This topic of the material has already been viewed in relation to the House Architecture. Among the four principal categories of the building material namely, wood, brick, stone and plaster; wood has already been discussed (vide Part III, Chapter VI).

Brick is the most ancient material for a sacred building. Iṣṭikā-nyāsa (the installation of the bricks) is performed as a part of the main foundation rite of the temple (cf. the Balidāna, Kalaśasthāpana Vāstu-pūjana etc.). Later on with the introduction of stone as building material, the Iṣṭikānyāsa was substituted for Śilānyāsa in both secular and religious buildings. Iṣṭikā and Śilā became synonymous so far as the Foundation-laying-ceremony was concerned.

Iṣṭikās in the ancient sacrificial symbolism are the body of the sacrifice—yajña-tanu (Taitt. S. IV. 4.9) and this symbolism is equally applicable here too. The very word Prāsāda, (etymologically the piling up —Sīdanam) indicates it. The Prāsāda, the symbolic manifestation of the formless Puruṣa, gets concrete manifestion (Mūrta) with the help of the Iṣṭakās or Śilās or any such material—all as Iṣṭakās pertaining to ritual. The Vedic Agni was a massive pile, the Prāsāda, the main and integral part of the Hindu Temple is also nearly a solid monument (but for the small space of its sancturary and such technical devices which lessen the weight of the mass piled above it).

The Samarāṅgaṇa Sūtradhāra mentions about half a dozen substances of which the temples are made. In the 59th chapter (Vimāna etc. 64 Prāsādas) details are given of wooden temple Harmya (ibid 217), the rock-cut temple Layana (ibid 236-7), the cloth made temple Paṭṭiśa (ibid 238-9) and earthen temple (mṛṇmaya) Vibhava (ibid 241).

The temples made of stone and baked bricks are greater in number and the *special statement* of the text is that such temple are characteristic of the towns (S. S. XLIX. 6; LVI. 7 and 8). In hamlets however, they can be built of ordinary mud and wood or bamboo also (cf. Vibhava 59. 240-1).

Again temples are also made of metals and jewels; with the difference that temples made of gold and silver and decorated with gems are reserved for the gods in heaven; those made of brass and copper etc. for the demons etc; and those built of stones are characteristic of the Pātāla, the lower world (LVI. 4-6). It is only on earth

that temples can be built of any of these substances: stone, burnt brick, wood, cloth, bamboo, and mud, (ibid 7 and LXIII.21). It may be interesting to note that the Mahānirvāṇa Tantra (XIII. 24,25) says that it is 100 times more meritorious to give a brick temple than a thatched temple (i. e. wooden temple-writer), 10,000 times more meritorious to give a stone temple than a brick temple.

Lastly, it may be indicated that Iṣṭakānyāsa, mentioned in the previous paras, has got a detailed ritualistic procedure as Śilānyāsa in the text—(Śilānyāsa-vidhi, the 35th Chapter—see Summary for details).

(ii) Measurement.

Every temple type described in Samarāṅgaṇa has distinct and definite proportions of measurements. Full justice can not be done in the limited space of this sub-section. I have left out this topic here to keep it reserved for its elaborate exposition in another volume —"The Architecture and Sculpture of Samarāṅgaṇa" under preparation. Here it is indicated that perfect measurements have been viewed as of fundamental importance in connection with all buildings and more so in the religious structures esp. the temples. Samarāṅgaṇa's injunction "pramāṇe sthāpitā devāh pūjārhāśca bhavanti hi" XL. 13½) is already referred to (vide House Architecture Part III). Special attention however, is to be invited to the fact that a comparative study of the earlier texts with this medieval text reveals the modifications in the proportionate measurements of the Prāsāda, by the early part of the eleventh century when the Samarāṅgaṇa was written. Samarāṅgaṇa epitomises these modifications and I propose to take a detailed notice of these modifications in the subsequent volume. A brief outline of these modifications may be seen in one of the subsequent chapters i. e. XI.

(f) Ornamentation and Mouldings.

The mouldings of the Prāsādas, I have described in tabular form and they may be seen in the Glossary. As regards their architectural position, they go with the ornamentation and the decoration of the Prāsādas. After all, the exuberance of the manifold mouldings in any structure has a decorative value.

We have already seen that ornamentation in Temple Architecture is characteristic of the Lāṭa style. This ornamentation was associated with the profusion of pillars and super-structures together with mouldings and the door. As in paintings, so in architecture, the Patrajāti and the celestial beings—Yakṣas, Gandharvas and the celestial nymphs together with the auspicious objects (vide door decoration—the House Architecture), provided the greatest fascination for decoration. Thus the natural world, the animal kingdom,

both of land and water, and also the mythological world--these principally provided the largest number of various decorative elements. All these aim at aesthetic experience and so are fundamental in an artistic creation in India.

The Samarāṅgaṇa-sūtradhāra draws a line of demarcation between the decorative elements of houses and those of temples. Those prescribed for one are proscribed for the other—vide Vāstu-lakṣaṇas under 'Prayojyāprayojya'—with what to decorate and with what not to.

(g) The Consecration of the Temple and the Installation of the Image.

Lastly the planning of the temples can not be complete unless it is consecrated and the image is installed. This topic is more ritualistic than architectural, but as, according to the genesis of Indian Architecture, architecture is a grand ritual, we have to consider this topic. Samarāṅgaṇa treats this topic in a modified manner. It speaks of the dedication of the temples, a detailed mention of which is made in Vāsu-lakṣaṇa.

The following account from Dr. Kramrisch's Hindu Temple would not be out of place here:—

'At the end of Prakṛti' ('Agnipurāṇa' CI. 13) in the Kalaśa, the golden Prāsāda-Puruṣa is installed in the Empyrean below the Paramount Point of the finial. The temple as house and seat of God in which dwells His Essence is also His body; the temple contains the whole manifestation ('Mayamata' XVIII.193) in which He is beheld as Puruṣa, Supernal Man. "The Prāsāda should be worshipped as Puruṣa" ('Śilparatna' XVI. 114). It is both His house and representation. The several parts of the temple communicate His living presence and are likened to the body of man in the same way as the square of the plan and its partitions are the 'body' of the Vāstupuruṣa'. The door is the mouth, the Āmalaka or the High Dome is the head; its Brahmarandhra or foramen is pierced so as to receive the tenon (kīla) of the finial (stūpikā). The image in the Garbhagṛha is the Life (jīva) of the temple concealed in the darkness of the cave, enclosed by the mountain of its walls. The outside of the bulwark, teeming with ordered shapes and figures, is its explicit form. The temple is conceived from inside and visualised from outside; the communication between inside and outside is brought about by the radiating power from within which assigns its place to each and every facet of the walls; the inner dark is extracted through closed doors and windows (Ghanadvāra and Gavākṣa) as a chiaroscuro which adheres to the Prāsāda extended in mid-space and facing all the directions. Tier upon tier in a solidified ascent, its bulk is reduced in the tapering super-structure and carried towards the Paramount Point (page 359).

CHAPTER VIII

PRĀSĀDA MAṆḌAPA

Prāsāda in the imagery of the Samarāṅgaṇa (68.47-8) (its author being a king) is a king in grandeur and splendour both. The Pīṭha of the Prāsāda is its throne, its decorative elements are its various ornaments (like Keyūra etc. of a king) and naturally, therefore, a Prāsāda, like a king must have some sort of a paraphernalia best suited to it. The seat being in the Garbhagṛha, the Prāsāda proper, the main shrine, there must be some accessory buildings. All other buildings (besides the main shrine, the Prāsāda, containing the Garbhagṛha) within the sacred precinct, are accessory and subservient to the Prāsāda. The Maṇḍapa in front of the entrance along with other such accessory building in a huge set of some of the large Prāsādas (cf. Temples at Bhuvanesvara and Purī etc.) is, as it were, preparing the devotee for the entry into the temple.

Thus the Maṇḍapas have an architectural meaning in conformity with the fundamental meaning of religious architecture as Prāsāda is whose outer surface consists of sculpture.

"Thus when going to the temple (abhigamana) with speech body and mind centred on the divinity whose presence is installed in the image or symbol, the devotee becomes part of the architecture of the Maṇḍapa whose interior he traverses, in which he also may pause and gaze at the images that confront him; images which are carved on the pillars, the capitals and on the ceiling; guiding him onwards to the main image or symbol in the Garbhagṛha, or upward to the dome and its central point".

Again "while approaching (abhigamana) the innermost sanctuary and passing through the halls in front of it, the Bhakta is within the sacred architecture; together with the images he is enclosed in a dim, soothing atmosphere caressing the eye after the fierce light of the day outside. The atmosphere of the Maṇḍapa is charged not only with the scent of flowers, burning oil lamps, and the incense coming from the sanctuary, but is tense with the impact of the pillars and carvings" (H. T. p. 299).

With this background of the purpose of the Maṇḍapas, we may now proceed with its characteristic architecture and the varieties into which this text has classified it.

Maṇḍapa, as an architectural institution, is, in my opinion, older than the temple. It has its proto-type in Vedic Sad or post-Vedic Sabhā (see Epics). Dr. Acharya says (cf. Ency. H. A. 395), "Difference between Maṇḍapa and Sabhā (M. XXXIV 559-562): the former having a pent-roof, and the latter pinnacled (i.e. spherical roof)". This difference is kept in tact in the S. S. also,—the following description of the Bhadra Maṇḍapa (cf. Ch. 66.10-11).

—— भिर्भाजयेद् भागैर्भद्रं प्राज्ञः समन्ततः ।
श्रृङ्गाणि स्युर्द्विभागानि सहितान्युदकान्तरैः ॥
भागं प्रभा ——— रादामूलतलमस्तकम् ।
श्रङ्गेषु रथिका कार्या भागपादेन निर्गता ॥

The description of the Maṇḍapas with reference to the mouldings, shapes etc. is extremely rich in the S. S. (cf. the Ch. 67 verse 39, where the Maṇḍapa-pillars are provided with all possible sh. pes of decoration like square, rectangular, oval, eight-sided and sixteen sided). The roof of the Maṇḍapas too is made so rich architecturally with Dīptikā Toraṇa (ibid v. 85), Gajatālu (ibid v. 86), Ghaṇṭā and Padmapatrī etc. etc.

We have already taken notice of the Sabhā, its characteristic architecture (abundant pillars) in a previous chapter (Part IV Chap. on Sabhā). A Maṇḍapa in connection with the Hindu Temple is a detached temple, a pavilion, an open hall. Its functions have already been hinted at. But they are not exhaustive. We know that in India some of the temples and monasteries of old grew into universities. The more famous among them had invariably attached to them these detached buildings to serve as rest-houses, congregational places and places for sermons, discourses and religious discussions and other allied necessities both of the pilgrims and those permanently stationed there; the hermits, the Yatis and the Vanīs (forest dwellers) along with their disciples and pupils. Maṇḍapas, besides serving this sacred purpose had, as detatched buildings of Hindu Temple, been serving secular purpose also from times immemoral. Dance, drama, music, gambling and so many other sources of recreation and enjoyment took place in these Maṇḍapas. Raṅgamaṇḍapam, the auditorium in a theatre, is a recognised structure. Bharata's Nāṭya-śāstra bears testimony to this secular use and Dr. Acharya has taken a detailed notice of the Nāṭya-gṛha (-maṇḍapa,-veśma,-śālā—vide Ency. H.A. 273).

Now coming to the different types of Maṇḍapas, Samarāṅgaṇa in its two chapters on Maṇḍapa architecture, the 66th and 67th has

described as many as thirty-five Maṇḍapas in two groups of 8 and 2⁻
Both these groups are tabulated as follows:—

1st Group.

8. Maṇḍapas.

1.	Bhadra	5	Svastika
2.	Nandana	6.	Sarvatobhadra
3.	Mahendra	7.	Mahāpadma and
4.	Vardhamāna	8.	Gṛharāja

2nd Group.

27 Maṇḍapas.

1.	Puṣpaka	14.	Viśāla
2.	Puṣpabhadra	15.	Suśliṣṭa
3.	Suvrata	16.	Śatru-mardana
4.	Amṛtanandana	17.	Bhagapañca
5.	Kauśalya	18.	Dama
6.	Buddhi-Saṃkīrṇa	19.	Mānava
7.	Gajabhadra	20.	Mānabhadraka
8.	Jayavāha	21.	Sugrīva
9.	Śrīvatsa	22.	Harṣa
10.	Vijaya	23.	Karṇikāra
11.	Vastukīrṇa	24.	Padārdhika
12.	Śrutirjaya	25.	Siṃha
13.	Yajñabhadra	26.	Śyāmabhadra
		27.	Subhadra.

N.B.—It may be noted here that the text being corrupt, it is with the help of the Matsya-purāṇa (ch. 270) where almost identical names and the number (27) of these Maṇḍapas are given, that these 27 types have been reconstructed.

It may be noted that all these types of Maṇḍapas can be comprised within the two broad heads of classification, the Saṃvṛta and Vivṛta, as they are attached to or detached from the temple proper. Their specimens as pointed out in the introductory chapter of the Study are profoundly found in the monuments at Bhuvanesvara.

As regards the general shape and proportions of measurements, Maṇḍapa is either square or rectangular. The text prescribes two alternative widths. Either it should have the width of the Prāsāda (LXVII. 98) or its width is equal to the height or diagonal of the Prāsāda (LXVI. 8). These are the most perfect proportions; or else

it should be double—it has twice the width of the Prāsāda in the Udayapura Temple or its length is one-three-fourth of the width of the Prāsāda, (various intermediate proportions are specified in the S. S. LXVII. 1-4) and in the smaller temples, the maṇḍapa increases in size to 2¼ and 2⅓ of that of the Prāsāda). Any of these proportions may be chosen according to the available space (LXVII. 10) and other considerations. "As is the Prāsāda, so is the Maṇḍapa in front of it" (ibid 24b). This applies to its walls and their theme. "Walls however, are dispensible in the Maṇḍapa, it is then an Ākāśa-maṇḍapa (ibid 23) such as the Sabhā-maṇḍapa in Gujarat; these are entirely separate from the temple which comprises within its walls, the Gūḍha or "closed" Maṇḍapa.

"The super-structure of the Maṇḍapa must not exceed in height, the Śukanāsā of the Prāsāda (LXVII. 102; 110). The Śukanāsā however, itself varies at different periods and in the various types of temples from having half the height of the Śikhara to a less 'perfect' proportion. While thus the height of the Maṇḍapa depends upon the height of the temple and its Śukanāsā, its propotion is not a fixed one in plan, however, the centre of the Maṇḍapa is in a fixed proportion to the Garbhagṛha; its central square has the same area (LXVII. 43). This central space is marked as a rule by four pillars, forming a *Catuṣkī*, a pavilion whose pillars, by underpinning, help to support the roof or dome. The inter-columnia of the central square have the maximum measurement. The other pillars are placed at equal distances from each other, in aliquot parts, and originally, half of the inter-columnia in the centre: 64 pillars is their maximum number in the Puṣpaka Maṇḍapa (LXVII. 12). The significance of this number has its basis in the number of squares of the Maṇḍūka-Maṇḍala".

CHAPTER IX

PRĀSĀDA JAGATĪS

The term 'Jagatī' in relation to the temple-architecture or any sacred architecture denotes its base or socle. Even today we say the 'Kuven kī jagata' thereby meaning the raised up platform of the well. This 'Jagata' is the corrupt form of 'Jagatī as basement or terrace of the temple and is keeping with the tradition. But the S. S. has some innovation as explained ahead.

These Jagatīs have been dealt with in the text in two chapters (68 and 69). The very opening lines of the first chapter (68) give the highest praise to them:— "Now I am going to describe in detail the Jagatīs. These Jagatīs add to the grandeur and the magnificence of the temple, to the beauty and ornamentation of the town. These are the places of congregational gathering and the fittest abodes for the celebrations of festivities and the only refuge for peace and tranquility—both Mukti and Bhukti are simply dancing on them. Aglow with the presence of and the constant communion with gods (these being their very abodes) these are the places where the four goals of life (caturvarga) are attained and fame, longivity and glory are added to doners who built them" (S. S. 68. 1-2½).

In the metaphysical symbolism the Jagatī is the Pīṭhikā—the base of the temple, the very epitome of all the three worlds. Prāsāda is the Liṅga—in the sense that the whole macrocosm of the three worlds gets absorbed (layanāt) in the microcosmic image of the Temple. Therefore, Jagatī, the wide and raised terrace on which the Prāsāda, the main shrine of the Hindu Temple rests, becomes the substratum, the Ādhāra. This imagery of iconographical import is a magnificent testimony to some added virtues and the architectural accompaniments of this class of buildings, introduced in the medieval period of architectural history in this country.

All possibile shapes of the temple proper have been provided here also. The text says (ibid 12) that after the planning of the temple with its ground-plan (Sansthāna), vertical section (Unmāna) and its special architectural form (Lakṣaṇāni), the Jagatī should be devised correspondingly, i. e. it should carry the shape of the Prāsāda (Tadākāravatīm). Its width is given in proportion to that of the Prāsāda. If the width of the Prāsāda is 8 padas, Jagatīs'

width would be 28 padas (S. S. LIX. 41-42) or in another instance (ibid 52-53) 32 padas.

One of the chief characteristics of the Jagatī structure, as already indicated, is the planning of the śālās thereupon and they take as many as six types technically called after the place on which they are planned:—

1. Karṇodbhavā
2. Bhramotthā
3. Bhadrajā
4. Garbha-sambhavā
5. Madhyajā
6. Pārśvajā

that is, those placed on the karṇas are called Karṇajā, the first type; on bhramas Bhramajā; on bhadras Bhadrajā (the 2nd and 3rd types). Now the Garbhajā śālā is one which is placed in between these three (trayamadhye ca garbhajā) and that placed in the middle of all the five is called Madhyajā, and Pārśvaja as the name indicates is one, placed on sides.

As indicated, all the possible shapes: sqaure, rectangular, circular, elliptical, octagonal, etc. are the shapes of the Jagatīs too. Accordingly they may be tabulated as here under:—

Group A—The Square Jagatīs.

1. Vasudhā
2. Vasudhārā
3. Vahantī
4. Srīdharā
5. Bhadrikā
6. Ekabhadrā
7. Dvibhadrikā
8. Tribhadrikā
9. Bhadramālā
10. Vaimānī
11. Bhramarāvalī
12. Svastikā
13. Haramālā
14. Kulaśīlā
15. Mahīdharī
16. Mandāramālikā
17. Anaṅgalekhā
18. Utsavamālikā
19. Nagārāmā
20. Mārabhavyā
21. Makaradhvajā
22. Nandyāvartā
23. Bhūpālā
24. Pārijātaka-mañjarī
25. Cūḍāmaṇi-prabhā
26. Śravaṇa-mañjarī
27. Viśvarūpā
28. Ādikamalā
29. Trailokya-sundarī
30. Gandharvabālikā
31. Vidyādharakumārikā
32. Subhadrā
33. Siṃhapañjarā
34. Gandharvanagarī
35. Amarāvatī
36. Ratnadhūmā
37. Tridaśendrasabhā
38. Devayantrika
39. ... ...

Group B—Rectangular.

1. Yamalā
2. Payodharā
3. Netrā
4. Dordaṇḍā
5. Ākhaṇḍalā
6. Sitā
7. Vāruṇī
8. Māhendrī
9. Kulamodikā
10. Pallavā
11. Vidyādharī
12. Trikūṭā
13. Saraṇikūṭī
14. Upamā
15. Citrakūṭā
16. Trivikramā
17. Tripathā
18. Śaivī

Group C—Circular.

1. Valayā
2. Kalaśa
3. Karṇā
4. Karavīrā
5. Nalinī

Group D—Elliptical.

1. Mātuliṅgī
2. Ghāṭī
3. Āyamatī
4. Kālingī
5. —
6. —

Group E—Octagonal.

1. Mātṛkā
2. Śekharā
3. Padmagṛhā
4. Aṃśumatī
5. Kamalā
6. Puṇḍarikā
7. Alapatrā
8. Cakravālī
9. Candramaṇḍalā

N.B.—It may be noted that for the enumeration of the first group of 39 Jagatī types, the text is corrupt and chances are that some of the types might have remained unenumerated.

I have indicated before that the Jagatī as treated in the S.S. are an innovation. Jagatī, strictly speaking, is not a pedestal alone here. It is different from Pīṭha. The verses 5-8 of 68th chapter (Jagatyaṅga-samudāyādhikāra) may be taken to support this thesis (cf. also T. Ganapati Sastri's interpretation vide Contents विषयानुक्रमणी p. 9 under ६९ जगत्यङ्गसमुदायाधिकाराध्यायोऽष्टषष्टितमः—the 2nd line—पीठात् पृथक् जगती सम्भवे कारणम्). The import of this passage is that there are as many as six factors based on purely architectural matters like the shapes and measurement—Vistāra, Āyāma and height; parts and sub-parts and their mouldings; the expansion and deflection of the buttresses; the water-reservoirs and drains; the planning of the Śālās—the number, layout and the measurements etc.; the doors and stair-cases with

their mouldings and arches as well as some of the shrines of the gods and goddeses (the Devadhiṣṇya) on the Jagatī (a part of course of the central shrine, the Prāsāda), all these technically are called by the text as the Aṅga-samudāya, which establish the Jagatī structure quite different from the pedestal, the pīṭha of the temple.

The S. S (cf. 35th verse ch. 68) says "Brūmotha jagatī-pīṭham". According to the above thesis, thus its interpretation would be the pedestal of the jagatī and not the jagatī-pedestal.

Dr. Kramrisch herself admits (cf. f.n.H.T. 148) : 'In certain buildings the massively piled socle of the temple rests on a pedestal or sub-socle (Upapīṭha) of considerable height and the walls of the temple are set on a double sub-structure; the socle projects from the Māna-sūtra and gives a broad basis to the buildings'. And the S.S. does assign pedestal of sub-socle to the Jagatīs themselves (68.35). In a very beautiful image (68.47) it further likens these jagatī buildings, raised up wide terraces to the throne of a king meant for Prāsāda as a Puruṣa to sit upon as it were. And as the thrones are carved and are studded with jewels, similarly these structures may also have the projections and mouldings thereof, for their ornamentation and grand look.

The manifold varieties of the jagatīs tabulated above result from the different devices of the aforesaid architectural members—the Aṅga-samudāya—the principal ones among them being the Śālā-sheds to serve as the rest houses for the pilgrims, devotees, the priests and the pundits reciting the kathā etc. The 69th chapter entitled 'jagatī-lakṣaṇa' describes all these jagatīs in this light. A single illustration from the text would suffice for the character of the jagatī in the S.S. :—

चतुरश्रीकृते क्षेत्रे ... ... विभाजिते ।
... ... ॥
मण्डपेनोज्झिते कुर्याज्जगतीमनुसारतः ।
द्वौ भागौ मध्यदेशे स्यात् प्रासादो भागिकः भ्रमः ॥
... ... ।
... ... ॥
मत्तवारणसंयुक्ता प्रतोल्यादिविभूषिता ।
प्रथमा च समाख्याता जगती वसुधाभिधा ॥ 69.9–13.

Again these śālās also used to serve the places of little shrines for the installations of the images of the different gods and goddesses

of the Hindu Pantheon. Further again these jagatī-like Prāsādas were favourite and dedicated structures to particular deities as is evident from the following statements, cf. the 69th ch. of the text:—

कुलशैला तदा ज्ञेया हंसमालागमाश्रया। ३६
सदा महेश्वरस्येष्टा स्कन्दस्य तु विशेषतः।
अस्या एव यदा शाला पुरोभद्रे विधीयते॥ ४०
तदा महीधरा प्रोक्ता महीधरमनःप्रिया। ४१½

... ...

तयोरपि च शाले द्वे असक्रमविभूषिते। ४८
कार्ये मन्दार (शा?मा) ला स्यादेवं हरमनःप्रिया।
सुण्डिकायां यदा तस्याः शाला सम्पद्यते तदा॥ ४६
अनङ्गलेखा भवति जगती पार्वतीप्रिया। ५०॥

... ...

शालास्तिस्रः प्रतिदिश (मशालाग्नेय्यायदिना सुरविद्विपः)
अस्या एव मुखे शाला यदि तन्मकरध्वजा॥ ५८

Thus the sum and substance of the thesis is that as the śālā-structure is an essential component of these jagatīs, their character more than a socle or base may be taken to be established. They are no doubt besements but basements with additional virtues and the structures thereof.

CHAPTER X

VIMĀNA-VĀSTU

Something has already been said of Vimāna—vide 'Denotation and Connotation of Prāsāda'—chapter I. Here for the sake of completeness some remarks on 'Vimāna-Vāstu' need be made to complete, however meagrely, the fullest of the scope of temple-architecture, the subject of this concluding part. The Hindu Temple, as already expounded, has developed into two main styles, the northern or Nāgara and the southern or Drāviḍa. The S. S. is a north-Indian text book on Hindu Science of Architecture. This study, being primarily based on the S. S. is naturally limited in its scope of the treatment of the temple-architecture taking primarily the northern evolutions of temple-architecture ; hence in its counter part, the southern evolution as is found in such south-Indian Vāstu-texts as Mayamata, Mānasāra, Śilparatna, Kāśyapa-śilpa, Tantra-samuccaya, Īśāna-śiva-gurudeva-paddhati etc. etc., remains meagrely treated. Hence only a very brief exposition in this direction is called for. Further, temple-evolution in India did not confine to the main shrine. Its accessory buildings, fortified structures including the towering Gopuras and manifold Prākāras and Hundred-pillared or Thousand-pillared Halls or maṇḍapas assumed such an enormous and outstretching side-development that the central shrine was relegated to the background and these accessory buildings came into more prominence. This is more characteristically true of South Indian Temples, the Vimānas. In north India, Prāsāda, the main temple kept its position quite intact. Accordingly let us dwell a little at these ramifications.

Vimāna: Dr. Mallaya has reviewed practically all the important theories on 'Vimāna' as advanced by contemporary writers on Indian architecture—vide his dessertation—p. 273-274. Dr. Ananda Coomarswamy's view, however, may be taken to represent the correct position of our Vāstu-texts. He applies the term 'Vimāna' to refer to Dravidian temples, as in view of the authors of the Śilpa-śāstras the term 'Vimāna' denotes the whole structure from the basement to the finial. It refers to the central shrine in which is enshrined the image. Thus Vimāna and Prāsāda both are complete structures both representing the two streams of temple-architecture of our land The Prāsāda is a temple inclusive of all its main parts begining with the basement and ending with the finial, Guṛudeva supports this interpretation

(cf. Paṭala XXVIII st. 2) : 'नानामानविधानत्वाद् विमानं शास्त्रतः कृतम्'. The special characteristic of Vimāna is the variety of its measures——vide its etymology 'vi' and 'māna'.

The other special characteristics of 'Vimāna' have already been hinted at—vide the Origin and Development of Prāsāda-vāstu. Dr. Kramrisch has elucidated its significance and it may not be repeated here. But a special point in this connection is the 'Car Theory' in regard to the evolution of Vimāna-architecture. It is ably propounded by Dr. Coomarswamy and Mallaya doubts its tenability. The readers may make an interesting study of this discussion in Mallaya's book, p. 276-7. My view, however is, that 'Car Theory' can not be rejected so easily. We have already seen the implication of the origin of Prāsādas from the celestial Vimānas. The celestial Vimānas were cars as such. Many a temple in India like Rathas of Mammalapuram and the temples like Konark are a pointer. 'Car Theory' may not be confused with the temple-ritual—the festive processions. Indians have never conceived in little terms. They have always talked in sublimest of terms and noblest and highest of symbolism. Temples, the Prāsādas are the mountains and the Vimānas are macrocosm and microcosm in one. This is the significance of Māyā which pervades the world, the Creation and is pervaded by Brahmā, the Īśvara, the Creator. Savants like Havell rejecting the 'Car Theory' are more guided by medieval monuments—a historical bias. What about the cultural contents of so many institutions which though propounded in the hoary past, came to the surface only in the historical periods of Christian era.

Prākāras and Gopuras : Vimānas and Gopuras are intimately related to each other. The towering Gopuras are the crowning achievement of the south Indian temple-architecture. These Gopuras, from the stand point of architectural planning and arrangement thereof, are characteristically associated with Prākāras—the manifold courts into which the temples of South India are distributed. The courts really fall in the domain of Palace-architecture ; but as already elucidated the palaces and temples have a marked affinity to each other ; because temporal authority, the King and the spiritual authority, one's Kula-devatā or the Rājya-devatā were in India kept on par for some of the most mundane purposes like the residence and rites, the festivities and the processions. Accordingly the temple-establishments and the palace-establishments were identical to all intents and purposes. Their magnificence and the decorative elements too, were to some extent on par. Indian genius however, at last, surrendered to the feet

of the god and relegated the king to insignificance. The history bears the testimony that the grandest of the Prāsādas and the loftiest of the Vimānas were built by kings who took pleasure in foundation and dedication of temples and pouring all their wealth in the erection of stupendous undertakings like the Kailāśa at Ellora, Mīnākṣī-Sundareśvara at Madura and so many illustrious temple monuments scattered in every part of this land.

While reviewing the principal Vāstu-texts like the Mānasāra and Mayamata, we have already seen the respective classifications of Prākāras and the manifold types of Gopuras. It is, therefore, not advisable to go into their details here. My point is that the Gopuras were set in the Prākāra walls of the temples.

Gopura originally was a town-gate vide the Amarakoṣa—'Puradvāram ca gopuram', which tradition is based on the Vedic Gomatīpur and Epic Gogṛha, the fortified extensive cow-stalls. In the medieval history these culminated into colossal buildings, over or near the gate, giving entrance to a temple. The Arthaśāstra also enjoins the erection of a Gopura on the prākāra-wall. The Rāmāyaṇa and Mahābhārata abound in Gopura-glittering palaces and cities. In the Mānasāra the Gopuras are laid in front of each of the five courts into which the whole compound of a temple-edifice is divided. The Gopura belonging to the first (antar-maṇḍala) is called the dvāraśobhā ; that belonging to the second court is known as dvāra-śālā. The gate house of the third court is called dvāraprāsāda and of the fourth dvāra-harmya. Lastly the gate house of the fifth court (mahāmaryādā) is known as mahāgopura.

Like Vimānas, Gopuras are also said to be furnished with as many as sixteen storeys. According to the Mānasāra, these Gopuras are divided into ten classes in regard to the number of architectural members. They are called Śrībhoga, Śrī-viśāla, Viṣṇu-kānta, Indrakānta, Brahma-kānta, Skanda-kānta, Śikhara, Stūpikā and Saumyakānta. As regards other elements of Vimāna-vāstu, the Maṇḍapas and Taḍāgas etc., they may not be dealt with at greater length here for want of space.

CHAPTER XI

THE CORRESPONDENCE OF THE PRĀSĀDAS OF S. S. WITH MONUMENTS

While dealing with the Temple Architecture from the different standpoints of origin, development, styles and classification in the previous chapters, something has already been said on this topic. Here in this chapter, I would like to dwell at length upon this topic.

Scholars in their treatment of Indian architecture and more particularly of Temple Architecture have adopted the criterion of the ruling dynasties to whose munificence temples owe their origin, for the classification and other allied details of the temples. Naturally, therefore, the glory of temple building has been attributed to the patrons, the donors, the Kārakas of the Prāsādas, rather than to the Sthapatis, the Sthāpakas and the law-givers, the propounder-Ācāryas of the Śāstra. If the religious merit of building the temple is transferred into the Yajamāna, the builder, nobody is going to question it. But the merit of the artistic perfection of the temple and of the devotion of the highest order with which the work has been done must not be usurped. It is they, who had evolved the different styles of architecture. The propounder Ācāryas only gave them the norms of building types, the Sthapatis, in collaboration with the genius of the Sthāpakas, evolved different styles in which these temple-types could be finished. Types go with the Śāstrācā-rays, and the styles should go with the Master Architects—the Sthapatis.

A persual of these different classifications of the temples as tabulated before us will convince any intelligent student that the same type of temple, may it be Rucaka, Meru, Mandara, Kailāśa Nandyāvarta or Sarvatobhadra, has been described several times in several classifications in connection with different styles. Styles, therefore, as I remarked before, are the sum total, not only of the regional traits, but also of the architectural craftmanship which evolved them, of course, with due regard to the local and cultural background of the place, the centre of art, in a particular part of the country.

The principal art-centres, so far as the architectural evolution and development are concerned, were Kaliṅga, Āndhra, Gurjara, Baṅga, Madhyadeśa, Rajasthan, Orissa and Braja. It is in these

Janapadas that the Prāsādas of old, the ancient period, i. e. Gupta Period, as well as early and later medieval periods, say from 350 A. D. to 1350 A. D. rose from the small shrines to the stupendous super-structures, the main factors in giving rise to them were the patronage of the ruling dynasties, and the religious currents of the times—Buddhism, Jainism and Pauranic Hinduism. All of these contributed to the creation of monuments of supreme beauty, our richest and greatest architectural heritage.

As Samarāṅgaṇa Sūtradhāra was written in the early part of the eleventh century, it mirrors not only the then developed temple architecture, but has also prescribed potential norms for producing the later types of temples, characteristic of the later Chalukyan and later Indo-Aryan styles at Gwalior, Gujerat and Brindaban.

Now without going into details, let us proceed with the multiple classifications of temples one by one and show their correspondence to the monuments. This classification will have to be based either on the materials, or on the styles, or the shape and super-structure along with the names, varieties and origins thereof. A very important point to decide beforehand is that in what sense should we understand the correspondence of the norms of the temple architecture as propounded in the texts to the monuments? This correspondence we have to take only in a limited and general sense. It would be futile on our part to seek to find out if the details of the differnt canons of the planning of the Prāsādas, the Hindu Temple, as given in the texts, correspond to those found in the composition of an existing temple building. I have said several times, that this text is the most representative manual on the Vāstu-śāstra, the Hindu Science of Architecture, and as it was composed in the early eleventh century, naturally it portrays all the then developments of the temple architecture and according to the genesis of the great work, it not only epitomises the evolution of the temple upto its time but also, in its, own way has added many innovations to the already existing canons of the art. I will very soon show this characteristic of the work more particularly in the realm of the proportions of measurements and the varieties of the temple types, as already hinted in previous pages.

Proceeding with this topic with this background, the most outstanding points which I have made in this study are: firstly, the interpretation of the word 'Prāsāda' in the sense of Hindu Temple; secondly, the use of the various materials like brick, stone, wood, bamboo, cloth, rock (cave temples) and earth itself, according to the

situation and surroundings, location and localities such as town or a hamlet, a hill or forest and thirdly, the types of the structure and the super-structure thereof. This last criterion brings us to the most important subject, though controversial in nature, the styles of the temple. Different styles of the temple revolve round the super-structure and more correctly the finial the crowning part of the super-structure of the Prāsāda. These in my opinion are the broad angles from which we can see the correspondence between the texts and the monuments.

The word for the temple.

The denotation and connotation of the word Prāsāda has already been taken into consideration. Here I am concerned with the architectural implication of the word. In my opinion Prāsāda architecture and Vimāna architecture had their different origins from the two different building traditions. These two epitomise, as it were, the very essence of the Aryan and non-Aryan elements of Indian architecture, more especially of the temple architecture. Vimāna architecture is the proto-type of the South Indian Prāsādas having super-structure with storeys (Bhūmis) and the Prāsādas the raised platforms (cf. Vedic Altar) were the precursors of the Prāsādas developing into the piled up super-structure having Śikharas, as we have them in North India, viz. temples at Bhuvaneśvara, Khajuraho etc.

The Samarāṅgaṇa-Sūtradhāra, being the most representative compendium of the North Indian architectural traditions of the past (i. e. Nāgara School and its crown, the Lāṭa Style) naturally has patronised the word Prāsāda for temple and developed its architectural potentialities, as is evident from its very ornamental and exuberent architectural motifs of all parts of the temple, i. e. Jagatī, the super-structure and the finial. Thus the word Prāsāda for the temple in the Samarāṅgaṇa corroborates the implication of the Prāsāda as a sacred monument and also corresponds to several such monuments, both in the literature and architecture as well. For the former, the ancient works like Sāṅkhyāyana Ś.S. "Prāsādas on all sides of the Āhavanīya Fire" and Patañjali's Mahābhāṣya (II 2-34): Prāsādas of Dhanapati, Rāma and Keśava (already referred to in a previous chapter) can be cited and for the latter the following references are enough by way of illustrations :—

1. Garuḍa Pillar (Bhilsa) has an inscription for Uttama Prāsāda, of Bhāgavata, 2nd Century B. C.

2. The 'Vaijayanta Prāsāda' the Prāsāda of Indra, represented in a relief panel in Bharhut Cave 1st Century B. C.

3. 'Prāsāda-devālaya', occurs in the Nālandā stone inscription (Vs. 4-6) of Yaśovarmmadeva C. 530 A. D. 'Ep. Ind.', Vol. XX. p. 43.

4. Among the other inscriptions referring to extant temples as Prāsādas, is the Lakshmana Temple Sirpur (C. 700 A. D.), Ep. Ind. Vol, XI. p. 190).

5. Similar reference is found in the Gurji Inscriptions of Prabodhśiva, Ep. Ind. Vol. XXII. page 127.

N. B. There are other numerous references in Inscriptions and Praśastis as very ably gathered together (Ency. H. Arch) by Dr. Acharya in which the word Prāsāda corresponds in monuments to gorgeous temples as well as small pavilions where a deity or emblematic phallus of Śiva is installed.

Substances of the Prāsādas.

The substances of which the temples are built, as described in the text have already been referred to in the previous chapter 'The Planning of the Prāsāda'. These substances in the Samarāṅgaṇa Sūtradhāra range from wood, bamboo, cloth, bricks and stone to precious stones together with gold, silver, copper, brass and other metals as well. Dr. Kramrisch on the authority of Utpala the commentator of Bṛhatsaṃhitā and Maya remarks : "Utpala commenting in the tenth century on the 'Bṛhat-Saṃhitā' (LII. 39-41) quotes Hiraṇyagarbha ; according to him the range of substances used in definite types of buildings was large. The building Mandira, was made of stone, Vāstubhavana of baked bricks, Sumanta of unbaked bricks, Sudhāra of mud, Mānasya of wood, Nandana of bamboo, Vijaya and Śilpivikalpita of (tent) cloth, Kaṭima of wattle and others of gold, silver, copper, iron, lac and tin. According to Maya, there are only five kinds of buildings of different substances (H. T. ft. note 2 on page 101).

The South Indian texts like Mānasāra, Mayamata and Īśānaśivagurudeva-paddhati, the last one being contemporary of the Samarāṅgaṇa, however, treat this topic more technically. Mānasāra classifies the buildings from the point of view of the materials of which they are built under Śuddha, Miśra and Saṅkīrṇa i.e. (a) Śuddha, or pure, made of one material (brick, iron or wood) ; (b) Miśra, or mixed, made of two materials ; (c) Saṅkīrṇa or amalgamated, made of three or more materials, cf. Man., XVIII. 139—42 (vide H. A. In. & Ab. p. 187).

"In the I. G. P. (referred above) Part V, Ch. XXXII. 86–89, about the same time, the South Indian type of temples is said to be 'saṃcita', 'asaṃcita' and 'upasaṃcita', according to its 'density', and is considered

male, female or neuter, respectively. In the first instance, it is built of stone or brick, in the second of brick or wood, and lastly of brick and wood combined". (H T. p 101)

The following tabulation will show at a glance the early specimens of the temples built of the different substances :—

Substances	*Specimens*	*Age*	*Remarks*
1. Brick	1. Bhitargaon (U. P.)	Gupta Pd.	Mixed type
	2. Uttareśvara and Kaleśvara temples at Ter (Tagara) in Hyderabad Deccan.	5th Century, A. D.	brick and wood brick and stone
2. Wood	1. At Brahmor, Chamba (J. Ph. Vogel 'Antiq. of Ch. State' (p. 96).	8th Century.	
	2. Wooden temples as represented in the carvings of Bharhut, about 100B.C. and as described in the S. S. (Ch. 49th) as Hall temples; pillars support, their roofs or ceillings.		
3. Stone	1. Śilāprāsāda.		(Ref. H. T. p. 100)
	2. Śailamaya Prāsāda.		Ditto
4. Rock	Rock-cut temples at Ajanta, Ellora, Elephanta and so many other places (cf. S. S. Layana and Guhādhara).		

N B —These are only early references. The early medieval temples are numerous. The main material used in them is stone or brick and they abound in literature and architectural monuments, taken notice of, by practically all the modern works on Indian Architecture.

Proportionate Measurements of the Prāsādas

Prāsāda, the Hindu Temple, in its full development, means a huge settlement. Maṇḍapas, Jagatīs, small shrines housing the other deities (beside the principal one) to mention only a few of them, constitute this setup. Therefore, here when I am talking of measurements, a complete code of measurements not only of all the main parts of the temple is out of question, but also the measurements of the accessory buildings do not fall within my scope (cf. the measurements of the Maṇḍapas,—vide chapter VIII). A full picture of the proportional measurements of Samarāṅgaṇa Sūtradhāra Prāsādas is

painted in the subsequent volume of this study 'The Architecture and Sculpture of the Samarāṅgaṇa Sūtradhāra'. Here, therefore, my main aim is to show that about 1000 A. D., the time of the Samarāṅgaṇa Sūtradhāra, a good deal of modifications in the proportionate measurements of the Prāsādas can be seen which correspond and are sustained in the living practice of the art. The Lakṣmaṇa-temple in Khajuraho and the Nīlakaṇtheśvara temple in Udaipur may be cited as typical illustrations to show that the profiles of Adhiṣṭhāna and Vedikā tally with Prāsādas described in the 57th Chapter of the Samarāṅgaṇa Sūtradhāra (cf. temple types like Rucaka, Nandīśa, Hemakūṭa, Kṣitibhūṣaṇa, etc.).

The medieval developments in the temple architecture, the ground plan (talacchanda or saṃsthāna) the height and the super-structure etc. correspond fully to the temple types of the Samarāṅgaṇa Sūtradhāra. The Sāndhāra (having circum-ambulatory passage) varieties of of Prāsādas are represented in the Vaikuṇṭha Perumal and Ambarnath temples. Similarly the measurements relating to the height and super-structure too under-went a substantial change in the temples belonging to the early medieval period of architectural history of India as portrayed in the pages of the Samarāṅgaṇa Sūtradhāra.

"In the early texts in the 6th century etc. the total height of the temple including the Āmalaka was twice or else thrice its width. The general rule half a millenium later, as given in the Samarāṅgaṇa Sūtradhāra, however, is, that the height of the temple to its shoulder course (skandha) is twice, two and a half times and 2 small parts (kalā)—or two times and a quarter, the width of Prāsādas (S.S. LVII. 122; 329; 455; 492 etc.) Above the shoulder course of the curvilinear Śikhara are the neck (kaṇṭha, grīvā) and the Āmalakasāra or Aṇḍaka, which yet form the part of Śikhara. Above the Āmalakasāra i e, above the Śikhara, is the finial, which is composed of several parts; the Candrikā also called Padmaśīrṣa; has the shape of an inverted flat bowl. It supports the jar, Kalaśa or Kumbha and on it is placed the Bījapūraka, the shape of the citron or an Uṣṇīṣa (S. S. LVI—LIX passim)."

Again Śukanāsā which extended originally to half the height of the Śikhara is now given various commensurable heights in the different temples (S. S. LV. 91–93). The Maṇḍapa is now established as a separate hall in front of the Prāsāda, preparatory and subservient to the purpose of the Prāsāda (cf. Temples at Bhuvaneśvara in Orissa).

Super-structure of the Prāsāda.

The super-structure, crowned by the Āmalaka is the third and highest part of the body of the Prāsāda (the two other main parts of

Prāsāda being the solid base or socle, its altar and the sanctuary the Garbahgṛha with its vertical walls). No composite name could be evolved for the superstructure of the Prāsāda, the whole finial. Samarāṅgaṇa Sūtradhāra enumerates in many passages the several parts of the finial, the Candrikā or Padmaśīrṣa, the Kalaśa or Kumbha and on it the Bījapūraka, Bījeśvara etc, (LVI. 153-54. LVII. 136; 425; 719). I have already remarked (vide the "Development of the Temple Architecture" the III Chapter) that the Prāsādas as described in the S. S. with their curvilinear super-structures (Śikharas) correspond mostly to the monumental shapes of the temple. The construction of the curvilinear Śikhara, by means of a division in geometrical progression by fourfold division (Caturguṇa sūtra) was the rule in the canons as enunciated by pre-Samarāṅgaṇa works like Agni Purāṇa XLII. 15-17 and Hayaśīrṣa Pañcarātra XIII. 32.4 This canon no more held good by the time of the S. S. This height of the trunk of the Śikhara given should be divided by geometrical progression into a certain number of parts—three, four, five or six according to the S. S. (LVI. 137 and LVII. 817). The description of such a Śikhara fits in with the temples more profoundly at Bhuvaneśvara (and also at Khajuraho).

In a previous chapter (Development of the Temple Architecture) I have already talked of the main varieties of the curvilinear super-structure, namely the cluster of Śikharas, the Śikhara enmeshed in Gavākṣas and the composite Śikhara. The first is represented most perfectly in the temples of Central India, especially in Khajuraho (cf. Kandriya Temple); in northern Gujarat and also in Rajputana (cf. Jain Temple in Osia; Someśvara temple in Kiradu); the Rajarani temple in Bhuvaneśvara, Orissa. The second variety of the curvilinear Śikhara has been particularly perfected in Orissa (cf. the Liṅga-rāja and Brahmaṇeśvara temples). Lastly the third variety belongs to Central India and Deccan (cf. the Nīlakaṇṭheśvara temple at Udayapura of the eleventh century and the temple at Jhodga, Nasika).

A word on the pyramidal superstructure still remains to be said. It is mostly found in the Deccan as well as in Drāviḍa country. Chādya Prāsādas of the S S. come to in as illustrations of the pyramidal superstructure (already referred to, in Chapter III), but they are illustrations of earlier phase. The piling of one shape of temple upon the other, forms the subject matter of the chapter LV. of the S.S. The superimposed temples may be square in plan or circular, etc., their vertical sections are also different and every type has its name, such

as Rucaka etc. The text (cf LV. 79) syas "Rucaka or Vardhamāna or Śrīvatsa or Haṃsa whichever one may like among them, one should set up that on Garuḍa". The most perfect form with greatest height (190 ft.) is represented in the Bṛhadīśvara 'Great Temple' in Tanjore about the year 1000 A. D.

The Pyramidal superstructure composed of storeys or Bhūmis (as described in the text—chapter 62) have several varieties, a detailed notice of which is not every much desirable here.

Conclusion.

Temple architecture in India is not purely an architectural tradition. It is something supra-architectural. It is, therefore, difficult to conclude with it, as it is difficult to conclude with any such supra subject. The transcendental background, metaphysical motif and spiritual significance have made the Prāsāda, the Hindu Temple, as high as the highest peak of the Himalayas, and as deep as the deepest part of the oceans.

But I can surely form a conclusion of my humble attempt at the interpretation of this great institution as it is expounded and ramified into innumerable ranges and outlets in the pages of this mangnificient book written by a magnificient king. If the temple is a microcosmic representation of macrocosmic Brahman, the Universe, surely an ordinary sūtradhāra is incompetent to build it. Only the Bhuvanatraya-Sūtradhāra (cf. the very first verse of this work) can fashion it or can will some one to fashion it. So is the case with me, it is only in an inspired moment of my life that I could make an attempt to just peep into this vast ocean. I am fully conscious of it. There is still room for another attempt (cf. "Architecture and Sculpture of the Samarāṅgaṇa Sūtradhāra").

CHAPTER XII

AN OUTLINE HISTORY OF HINDU TEMPLES
(THE PRĀSĀDAS & VIMĀNAS)

Much has been written on Hindu Temples. Fergusson, Havell Kramrish, Brown and a host of noted savants have contributed to this theme in their standard works on Indian architecture and sculpture. 'Hindu Temple' by Kramrisch is a remarkable exposition of a specialised undertaking. The present writer therefore is bound to be benefited, very much from these 'Pūrva-sūris'. As he is primarily a student of the canons of Hindu architecture, sculpture (iconography) and painting, what are termed as Vāstu-śāstra, Śilpa-śīstra and Citra-śāstra, naturally his angle therefore must be coloured more by manuals than monuments. Accordingly in the previous chapters, an attempt has been made to study the canons of Temple Architecture, and the same theme may be continued in a pronounced way in relation to the monuments, the representative illustrations of the different types of temples that are described in these treatises on Vāstu-śāstra. Hence the presentation of this dessertation is bound to be different from those that are found in the text books of the subject by contemporary writers.

LAYANAS, GUHĀDHARAS AND GUHĀRĀJAS

We have already seen that one of the types of Prāsādas as described in the S. S. is the Layana or Guhārāja or Guhādhara. We have also seen—vide Origin of Temple-Architecture, that one of the most remarkable motifs of this origin was the mountain and its caves. Cave-dwelling has been a recognised institution for meditation and communion with God in India for times immemorial. Mountains are said to be the abodes of gods. In the celestial geography of India, mountain Meru is the abode of gods in general, and Mount Kailāśa, the abode of the Lord Śiva in particular. It is on this fascinating background of our mythology and implied sagacity of the searchers after truth—and the truth in this particular context being the divine communion—Deva-milana, that a separation from whom (i. e. the gods) was effected in Tretā-yuga due to the haughtiness and mis-demeanour of the mortals—vide 'Sahadevādhikāra' the S. S. Chapter VI, that the abodes of denizens, the temples were conceived, planned and executed on the models of mountains.

This however is a history of the most developed motif of temple-architecture. What were the beginnings, the humble beginnings in this direction? The answer to this may be sought in the early caves like Lomaśa Ṛṣi, Khandagiri, Udaigiri, Hathigumpha, Bhaja, Kondane, Karli, Ajanta, Ellora and Mamallapuram groups etc., which to all intents and purposes were not only primitive shrines and abodes of worship but also the replicas of cave-dwelling, a very hoary institution of India. The forests and mountains both have been popular for such abodes and such dedicated devotion. The rise of hermitages in secluded corners of the forests and the caverns in the mountains are a testimony to testify to this ancient Hindu ideal of meditation (which also included the search after Truth—cf. the evolution of the Āraṇyakas and Upaniṣads from the womb of the forest). Life of a foresteer—vide Vāṇaprasthāśrama, was a recognised and equally important mode of living in ancient India. It was one of the fourfold Āśramas, or the stages of life. Naturally any origin for worship and places of worship must have been motivated from the forests and mountains. These aforesaid places, our reputed archaeological sites are all in the midst of forests and also in the lap of the mountains. I therefore, take these caves to be the earliest representations of temples and temple architecture and illustrating fittingly our Vāstuśāstra temple-types or the Prāsāda-jātis of Layana, Guhādhara and Guhārāja Prāsādas or Vimānas.

All these three names illustrate also the gradual evolution of this type. The primitive cave-shrines at places like Khandagiri, Udaigiri etc. are illustrative of the Layana-Prāsādas, the caves of Ajanta may be taken to illustrate the Guhādhara Prāsādas and the cave-temples of Ellora and Mamamalapuram being the finest specimens of rock-cut-architecture illustrate the zenith of this type, the Guhārāja, like the Prāsādarāja Meru which illustrates the finest and the grandest representation of Śikharottama Prāsādas taking their motifs from the Mountains, the specimens of which will be taken up in due course in this study. With this general introduction let us take these momuments one by one.

LAYANAS—Early Mauryan specimens.—Kondane of the first century, B. C. cut out of the cliff-face consisted of a cahitya hall or temple and its attached monasteries represent the two characteristic types of structure, one arched over by means of a barrel-vault roof and the other having a flat roof. The seven rock-cut sanctuaries in the hills about nineteen miles north of Gaya—four on the Barbar hills adn

three on the Nagarjuni hill in addition to one more example called the Sitamarhi situated some thirteen miles south of Rajgriha and twenty five miles east of Gaya may be said to illustrate the first monuments representing the Layana types of early Prāsāda-shrines. Among the Barbar groups the two most notable examples are the Lomaśa Rishi and the Sudama. They are not only the earliest examples of rock-cut method symbolizing the Layana, the retreat but also they represent the early model of Śālā-architecture, the wood and thatch which, as already remarked, was the rise of first house, the Śaraṇam or Nīḍam on earth either to house human beings or to dwell the divine. In the Nagarjuni group of sancturies notably in Gopi or milk-maid cave, we find the temple-architecture in making. The abundant application of pillars and motifs of the capitals are reminiscent of the later genesis of the Śikhara or the spires or more characteristically, to put in the Vāstuśāstra terminology, the Aṇḍas of the later temples and the Āmalaka or the Amalaśilā of the finial in the later growth of the temple-superstructure. All these eight early Layanas, found in *Barbar Hills* (Karna-Kaupar, Sudama, Lomas Rishi and Visvajhoparī), *Nagarjuni group* (Gopika Vahijaka and Vadalhika) and *Sitāmarhī* are our earliest types of Layana-Prāsādas.

The V. D. (III. XCIII 27, 28) like the S. S. also supports that the caves are the places where the denizens of the heaven are present. Naturally the man in his quest for re-union with the gods, his higher selves, makes an operation consummate with the high mission of godlines for cutting the living rocks to make them for this commu-ion. Vāstuśāstra (S. S LIX—238) designates these secret (Guhā) places as Layana. Dr. Kramrisch also supports this conclusion—vide her observation in H. T. p. 114-15: "These, (i. e. caves) in their transformation by art, are stations of a return to nature symbolic of man's return to his original state and higher self. The devotee enters them as places of release equal to the structural temples with their transubstantiated walls. The cutting and entry into the living rock would thus re-instate man in that integrity from which he had departed and fallen since the Kṛta-yuga the perfect age, when he lived in the hills at peace with himself".

Now a word may be added in regard to the discrepancy as may be noted from the lakṣaṇas as given in the S. S. (LIX. 236-37) according to which, Layana (place of rest) is undoubtedly the name for rock-cut temples and which have no Śreṇī, which means no superstructure with its cluster groups in similar shape; they are

without buttresses (niryūhaka) while a circumambulatory (bhrama) and window (gavākṣa) should be carved on the rock in imitation of structural temples. This lakṣaṇa epitomizes the development to which the early sancturies, as referred to above, had undergone. Further the Layana is also equipped with stairs, a gateway, (pratolī), roll cornice (viṭaṅka—kapotapālikā) on the facade and doors. This description according to the learned authoress of Hindu Temple refers only to cave-temples such as those in Badami. The cave-temples, in the earlier example (3rd century B. C.—6th century A. D.) are interiors only, having a facade (which quite fits in with the eight examples cited alove); to these types were added (Mamalla-puram, Ellura, Kalugumalai—which to my mind represent not Layanas but Guhārājas as we shall presently see) complete replicas of structural temples hewn out of the rock in their exterior and excavated within (Kailash Nath Temple and Indra-sabhā in Ellura). She observes: "Although the last named temples are, one Hindu, the other Jain, the majority of the rock cut temples and sacred abodes are Buddhist. Out of a total of 1200 rock-cut temples 900 are Buddhist, 200 are Jain and 100 are Hindu. Some of the sanctuaries in Ellura (Daśāvatāra, etc.) and the Śiva temple in Elephanta are, though posterior to the sixth century, interior excavations only with a facade."

"The square, dark, small Garbhagṛha, is not transferred from the cave temple to the structural temple. The flat roofed 'Gupta' temple is neither derived from Brahmanical excavated sanctuaries contemporary with it (Udayagiri in Bhopal, etc.), nor from earlier excavated cells with a flat ceiling; the early rock cut sanctuaries have domed or vaulted interiors, where as cells and halls in the rock cut monasteries have a straight ceiling. There is no scope for a flat roof in rock cut temples, the Caitya hall prior to the Gupta age; it belongs to the flat roofed porch only of the sanctuary p:oper. The flat roof of the rock cut Kailasanatha Temple in Ellura of the eight century is in imitation of a structural temple of that age. Any shape can be cut into the rock, no structural form is born there." Vāstuśāstras (cf. the S. S. LIX) have codified the the individual dedications of the respective temples (Prāsāda-stavanam) to the principal gods. Layanas in that context are the common abodes of the gods in general which also fits in with its un-sophisticated evolution.

GUHĀDHARAS—Guhās and Layanas, for all intents and purposes are one and the same—the secret places where the denizens of heaven are present, for the communion with whom, men have been medi-

tating for time immemorial. The S.S. LIX 193-197 describes this type of cave-temples. Its name however is derived from the division of the door frame (dvāraśākhā) into several compartments (guhās). It is also enjoined in the text that it should resemble the temple—Simha (e. g. Simhāsya cf. the M. P. CCLXIX). As already suggested it is illustrated in the cave temples of Ajanta and a brief review is accordingly called for. But before Ajanta is described a passing review of earlier or contemporary specimens may also be made. Primitive shrines like a rock-cut chamber at Guntupalle in the Kistna district of Madras state and another similarly rock-cut at Kondivte near Bombay represent the earlier efforts towards this direction. Both these illustrate one of the many sided currents of the building art under the Śuṅgas and Āndhras.

The more developed types of Guhādharas however may be attributed to Buddhist rock-cut architecture, the early or Hīnayāna phase, as are represented in the monuments at Bhaja, Kondane, Pitalkhora, Ajanta, Bedsa, Nasika, Karli and Kanheri. These Hīnyāna rock-cut monasteries represent a definite regional development, as they are limited to the western side of India, many of them lying within the Bombay State. The South and the North (especially Orissa) also did not lag behind in responding to this exuberance. We have already remarked that these Layanas and Guhādharas come to a total of twelve hundred, majority of which are attributed to Buddhism. This rock-cut architecture, are not caves but cave-temples, the Layana, the Guhādhara, the Guhārāja Prāsādas, in the terminology of our Vāstuśāstra and Prāsādas or temples in the canons of Indian Art are architecture and sculpture both. Percy Brown also supports this implication. "The fashioning of architectural forms out of the living rock, or rock-architecture, occupies a very prominent place in the development of creative art in India. Yet in spite of the admittedly high aesthetic character of these productions they have never been allowed that position in field of art to which they are fully entitled. Ever since these examples of rock-architecture became a subject of study, it has been the custom to refer to them as "caves", implying that they were natural grottoes in the mountain side, the haunt of wild people, and still wilder animals. No word would be more misleading to designate these wonderful records of man's handwork, as many of them are large and well planned temples, skilfully wrought and chiselled out of the solid cliff, and to define which the term rock-architecture is the only one which can adequately describe their workmanship. If, however, the usually accepted definition of architecture as "good construction truthfully expressed"

is applied, then on account of their technique alone they cannot be classed as architecture in the strict sense of the word. These rock-hewn forms are expert achievements but they involved no constructional principles, nor do they display any functional properties their columns signify no adjustment of support to load, the arches carry no weight, nor do they counteract any thrust, in the whole operation no structural intelligiblity is required, as no problems of this nature arise. In a word rock-architecture to all intents and purposes is not architecture, it is sculpture, but sculpture on a grand and magnificent scale"

"Rock-architecture appealed to the Indian mind for several reasons. In the first place its stability, as it was as immoveable as the mountain of which it formed a part, was undoubtedly an attraction to a people living very largely in impermanent structures of wood and wattle. Secondly, it was acceptable to the Buddhists because from the earliest times natural caves and grottoes were the favourite abode of hermits and anchorites, a custom which even now survives in Nepal and parts of Tibet, where a Lamaistic form of Buddhism still prevails Such habitations were therefore not only associated with religion but had also the sanction of tradition. But the principal reason was the great increase in the conventual life of the country at this time. From the ancient practice of asceticism common in the Vedic period, it was but a step to that of monasticism, a system which all the world over has induced its followers to retir into rocky fastnesses, forest recesses, or lonely deserts, there to dedicate their lives to the rare wor hip of the self-absorbed. Some such convictions, perhaps, accentuated by the pressure of religious intolerance, for the ruling powers belonged to the Brahmanical faith, were largely responsible for extensive monastic establishments flourishing within these secluded mountain retreats."

With this general introduction to the rehabilitation of these cave-temples of India in their proper perspective, it is not the business of this dissertation to give a detailed architectural account of these individual monuments, but for an idea of their characteristic features, some remarks in the words of Percy Brown are called for. "This architecture resolves itself into some ten separate groups of conventual establishments, each group being seperate and self-contained, and each originally consisting of a prayer-hall and its accompanying monastery. The prayer-hall or Buddhist temple, and usually referred to as the chaitya hall, as it accommodated a chaitya or stūpa, took the form of a large vaulted hall having an apsidal end and

divided longitudinally by two colonades into a broad nave and two aisles. In the apse stood the stupa, also carved out of the natural rock, consisting of an elaborated representation of the structural tumulus previously described." "The other architectural formation in these rock-cut retreats was the monastery proper, an arrangement of apartments for the accommodation of the monks, and known as a vihara. A typical vihara consisted of a square central hall entered by a doorway, in front of which was a vestible, verandah, or portico. Out of the central hall, doorways opened into square cells carried still further into the rock, each of which was the abode of one of the brotherhood. The original plan was for one of these viharas to be situated close to the chaitya hall, but as the priestly community increased, more cells were required to be excavated along the cliff side. These provided quarters for the ordinary members of the community, but there were others of a superior rank who felt it more seemly to live in chambers separated from the main group, of which an example is vihara number 4 at Karli. In addition there were those rare individuals on a still higher plane who claimed to be Arhats or Boddhisatvas, each of whom on account of his status lived alone in a single cell by itself, examples of which may also be seen at Karli. Communication between all these various forms of abode was maintained, where necessary by flights of steps, but in some of the larger monastic establishments, the cells are so numerous that the cliff side is honey-combed with them, recalling the nesting burrows of swifts in a disused quarry."

Ajanta. Now coming to Ajanta it may be said that it is not properly studied. A historical bias has been responsible for the lack of a coherent and unified picture. There are twenty nine caves, majority of which are Vihāras, the so called abodes of the monks and priests of the Buddhist Order. Chaitya halls numbering about five are the Buddhists shrines attached to the principal Vihāras. Among these 29 caves caves III, IV, V, XIV, XXIV, XXV, XXVII, XXVIII and XXIX are left incompleted. Ajantā is famous for its paintings; but its contributions in the realm of building art, especially the vase and foliage capital formed the remarkable legacy of the Gupta Art. Ajanta cave-temples represent many centuries of growth of art and evolution of the Order. Both the schools of Buddhism, the Hīnayāna and Mahāyāna contributed to the Ajanta School of Indian Art, which in its onslaughts, powerfully contributed to all the three principle branches of Hindu Art—architecture, sculpture (iconography) and painting. It is said that at Ajanta a Hīnāyana order of priests had, towards the beginning of Christian era, excavated a group of large

halls and monastic abodes, after which a quiescent period of four centuries intervened, when this Buddhist hierarchic settlement again sprang into life. These caves as already remarked signify two types of religious institutions established by convention, namely the Chaitya hall or temple and Vihāra or monastery. In the later Mahayana phase (A.D. 450 to A.D. 642) however some changes were introduced especially in the excavations of Vihāras, the Chaitya retained to all intents and purposes, the previous pattern of which the essential elements were the nave, aisles, apse, sūtpa and vaulted roof.

GUHĀRĀJAS. Something has already been said on the caves and the mountains as providing the grandest of origins and evolutions of Temple-architecture in India. The caves are the ancient residences of the gods. Caves, like the banks of rivers, are our Tīrthas. Presence of gods is so strongly felt there that cave and god are one. The Vāyu Purāṇa XXXIX. 55 speaks of cave-dwelling of Guha, the Secret One (Kārtikeya) on the Visākha mountain. The god is very fond of living in caves. To these natural habitations of the gods have to be added, as places of worship, retreat and congregation other natural caves and also those cut into the rock for similar purposes. The Ajivikas, Jain sect and the Buddhists were the first to do it. Within Brahmanism which was passing through the Vedic ritualism and the solitary monasticism in the natural caves, the substitution of excavated caves for natural ones took time to evolve. "The heterodox sects preceded the Hindus by many centuries in their interference with and transformation of nature. They had already achieved magnificent results in such large, aspidal vaulted 'churches' as the cave-temple at Karli and in rock-cut monasteries like those at Nasik or Ajanta". The dated Ājivika caves in the Barbar hills, Bihar were excavated in the reign of Asoka, in the 3rd century B. C. The Brahmanical warship cut its entry into the rock near about 400 A. D. It has the shape of a small, flat roofed Garbhagṛha which was the most earliest temple-plan what is called the Chādya-Prāsāda. Among the Gupta temples, a structural porch or maṇḍapam belonging to Udaigiri, Bhopal may be taken as the earliest Brahmanical rock-cut temple. It dates from the reign of Chandragupta-II, 382-401 A. D.

These early temple-plans as described in the Vāstu-śastra like the S. S. enjoining to be built against the back wall of the pillard hall not only correspond to a Garbhagṛha cut deep into the rock and preceded by its maṇḍapa, but to my mind, they also must have given to the Jainas and the Buddhists, the prototype for their rock-cut cave-temples.

"Garbha, Pāli 'gabbha', is also the name of rock-cut cells of the Buddhist monks connected with their large monastic halls. Such an establishment is called a 'navagabha Maṇḍapa' (Karli cave inscr., 'Ep. Ind., XI, p. 119), if there are nine 'gabha' or cells; or also 'paca-gabha maṇḍapa' and 'sattagabha maṇḍapa', when their number is only 5 or 7 (Junnar cave inscriptions, pp. 131, 136). Any small room is finally called 'gabha', in Pāli texts and denotes various kinds of chambers or rooms ('Cullavagga', VI. 3-3.) which may be square or rectangular, etc The use of terms such as 'prāsāda', or its equivalent 'vimāna'; gabbha, and also 'guhā', cave (Cullavagga', VI.1, 2) in civic architecture is also current in the Epics. "Dhātugarbha (dagabha) is the stūpa as receptacle or womb of the relics (dhātu) of the Buddha. The Buddhist rock-cut cells again had their equivalent in structural cells; these in stone buildings, such as are preserved in Gandhāra were also used as shrines for a Buddhist image or a stūpa (Takht-i-Bahai). In this particular instance however they are not square, but rectangular, etc. and they have not flat roofs". H.T. p. 170 f. n.—102.

With this general introduction in the context of this last type of the cave-temple, the Guhārāja, let us deal with it in more details of architecture and the crowning illustrations at renowned sites like Ellora and Mamallapuram.

Guhārāja, King of Caves, is a name as suggestive as it is unique among the ever-increasing types or Jātis of temples enumerated and described in the texts like the S. S. and A.P. the medieval compendiums of Indian Architecture. The name however occurs also as that of actual temples, such as 'Kuraja' (Guhārāja), Bir, Temple which is situated between Deogarh and Candpur in Central India. Kuhara or cave is a synonym of Śālā, or room in the Bhaviṣya-purāṇa (CXXX. 27) where the type of temple, called Meru, is described as having Kuharas. The Anand Pagoda, in Pagon, Burma, being a, (Ku) or cave has such Kuharas, 'caves' or halls in the four directions radiating from a massive centre. The Burmese name for structural brick temple is (Ku) which is only an imitation of our Vāstuśāstra tradition.

According to Utpala (comm., Br. S. LV. 25) this temple-type has the shape of a cave. Its height, 32 cubits, follows the general rule, of being twice the width of the Prāsāda, and implies a superstructure as high as the walls of the Garbhagṛha.

Prof. Kramrisch however takes this temple-type represented in Burmese temples. She says "This King of caves, Guhārāja, whatever

its actual shape was, shares part of its name with Burmese brick built temples. "In Burma, brick-built temples with inner spaces are simply called 'Ku' or cave. One of the temples at Pagan bears the name Shwe Ku, Golden cave. The Burmese Glass Palace chronicle tells about the erection of the Ananda temple of Pagan, how King Kyanzittha requested eight Arhats to produce by their concentrated thought an image of the cave Nandamūla in the Gandhamādana. This they did and the King built a large Ku-Guhā, a 'cave', or temple in the likeness of the cave Nandamūla and called it Nanda. The name of the cave, which properly is the Garbhagṛha, appears here as that of the whole Prāsāda". This may be one of the many frontier development of Hindu Art. From the interior off-shoots, however, the Cave-temples at Ellora, Elephanta and Mamallapuram may be regarded as the best representative monuments.

Ellora—It is a remarkable architectural site, perhaps unique in whole of the country, where we find a confluence of all the three principal religious creeds, Buddhism, Brahmanism and Jainism. Its earlier Buddhist phase is contemporary to Ajanta, in a direct line only some sixty miles distant. The slight difference in the Buddhist rock-cut architecture at Ellora may be necessitated by not only the later adaptation in the creed and the ritual, but also the difference in the terrain of the two places. For instead of the almost vertical cliff as at Ajanta, the halls of Ellora are excavated out of ridge of low hills, pushed up from the vast plateau of the Deccan.

Buddhist—"At Ellora the Buddhists were the first of the three great religious communities to occupy this site, and as such their monasteries are in the most favourable position, being at the southern end of a scarp of the plateau, where it throws out a horn to the west. Here they practised their religion for some two centuries, from A.D. 450 to 650, during which period the group of twelve rock-cut halls belonging to the Buddhist creed were produced". (see the tabulation of all these 12 excavations in Brown).

"An architectural feature which emerges about this time is a type of pillar and capital thoroughly distinctive of the rock-out technique. Of massive proportions, the lower half, which corresponds to the shaft is a plain square prism, while the upper portion is round in section, vertically fluted, and elaborated into a capital consisting of the compressed "cushion" forms. This became the dominating type of capital and pillar and together with the other type already referred to as the "vase and foliage", constituted the two "orders" in all subsequent rock-cut architecture. So different in every aspect are

these two capitals—the "cushion" and the "vase", that it is clear they are the outcome of two entirely different but parallel traditions."

The Mahanwada is by far the largest and most remarkable and owing to its uncommon design, is in a class by itself and resembles with the 'Mahārāja' or the "Durbar-Hall" at Kanheri. Both these prayer halls were the outcome of the Lamaistic services in the Order.

The most notable production of the whole Buddhist series at Ellora is chaitya Hall no. 10, commonly known as Viśvakarmā or 'Lord of Arts' as it has the reputation of being specially frequented by artisans. As a more orthodox type of Buddhist prayer-house and the only one of its kind on the site, it resembles in many respects the two almost contemporary Mahayan chaitya halls at Ajanta.

Brahmanical—"It was early in the seventh century, when the activities of the Mahayana Buddhists on this site were drawing to a close, that the Hindu hierarchy began in their turn to prepare a series of columned halls in much the same architectural style as the Buddhist, but adapted to suit their own ritualistic needs. The Brahmanical group at Ellora extends along the west face of the hill for about half a mile, and consists of sixteen excavations numbered 13 to 29. The principal examples are : (No. 14) 'Ravana-ki-Khai' or Abode of Ravana, the demon king of Lanka (Ceylon); (No. 15) Das Avatāra, or the Ten Incarnations of Vishnu; (No. 16) the Kailasa or Siva's Paradise; (No. 21) Rameswara, or Lord of Ram; (No. 29) Dumar-Lena, sometimes called Sita's Nani, or Bath of Sita. These resolve themselves, as follows, into four different types, most of them apparently taking their various shapes in order to conform to the changing requirements of the creed"—cf. Brown p. 86.

Daśāvatāra cave-temple is the largest and the finest of the first type and is in two storeys along with a detached shrine or maṇḍapa, intended perhaps for Nandī, Śiva's bull or Dvārāpāla. The second type though quite simple, represents the elaboration to which the Hindu temple was subjected in the early medieval times. The third type, the Dumarlena is one of the largest and most imposing temples on Ellora site. It is a massive central shrine being made possible by the shape of the hill in which it is cut. The final type of Brahmanical rock-cut architecture consists of one example only, the Kailasa, Śivas Paradise, and stands in a class by itself as it is unique. It is the structure in rock—a new scheme altogether. Instead of the underground halls which had hitherto been the practice, its creators

threw aside all previous conventions and boldly undertook to reproduce in the virgin rock to very large scale and in full detail a structural temple of the period.

"Once the idea of the Kailasa was conceived, its production became a matter of time, patience, and skilled labour, all of which appear to have been readily forthcoming. That it was an expression of exalted religious emotion is obvious but even this condition could not have made such a consummation possible, had it not also had the patronage of a ruler with unlimited resources and who was at the same time moved by the loftiest ideals. This monarch has been identified as Krishna I (757-783) of the Rashtrakuta dynasty of Malkhed."

Artistically judged, Kailāśa is more closely allied to sculpture on a grand scale than to architecture which is the real genius of Hindu Architecture which is not only a mechanical art, but also a fine art grand and splendid. The temple-scheme is comprised of four parts, the body, the entrance, the Nandi and the cloisters surrounding the court yard. Two free standing pillars or dhvajastambhas fifty one feet high, one on each side of the Nandi shrine add to the grandeur of the temple. The whole monument shows how both the orders the Southern or Dravidian and Northern or Nāgara have got assimilated to evolve a composite All India Hindu architecture of the medieval period. 'Cushion' and 'Vase and foliage', both are before our eyes.

Percy Brown is very apt: "The temple of Kailasa at Ellora is not only the most stupendous single work of art executed in India, but as an example of rock-architecture it is unrivalled. Standing within its precincts and surrounded by its grey and hoary pavilions, one seems to be looking through into another world, not a world of time and space, but one of intense spiritual devotion expressed by such an amazing artistic creation hewn out of the earth itself. Gradually one becomes conscious of the remarkable imagination which conceived it, the unstinted labour which enabled it to be materialized (a work of a hundred years), and, finally, the sculpture with which it is adorned; this plastic decoration is its crowning glory something more than a record of artistic form, it is a great spiritual achievement, every portion being a rich statement glowing with meaning. The Kailasa is an illustration of one of those rare occasions when men's minds, hearts, and hands work in unison towards the consummation of a supreme ideal. It was under such conditions of religious and cultural stability that this grand monolithic representation of Siva's Paradise was produced". As regards the Jain monuments, they may be passed over for want of space.

Ellora represents the final manifestation of rock-cut architecture in India along with the other notable sites (i) the islands of Elephanta and Salsette and (ii) Mamallapuram, a development under the Pallava dynasty.

Elephanta—resembles the Dumar Lena in general distribution; but it is superior to all others of its kind in the character and quality of its sculptures. For details see Percy Brown.

Mammalapuram—Leaving other cave-temples illustrating guhārājas, let us now concentrate on Mammallapuran, the famous seat of Pallava rock-architecture. Pallava-architecture has two phases, wholly rock-cut and wholly structural. The former illustrates Mahendra Group A.D. 610 to 640, pillared halls (maṇḍapas) only together with Mamalla Group A. D. 640 to 690, maṇḍapas and rathas (monolithic temples) and the latter Rājasimha-Nandivarman Groups. We are concerned here with the first phase. Of the rock-cut examples of Pallava architecture at Mammallapuram, the excavated halls or maṇḍapas are ten in number some of which are unfinished: Dharmarāja, Kotikal, Mahiṣāsura, Kṛṣṇa, Pañca Pāṇḍava, Varāha, Rāmānuja—Five-celled Saivite and the last two unfinished.

As regards the series of monolethic temples called rathas, popularly known as the 'Seven Pagodas' they may be regarded a stupendous artistic creation and an entirely novel form of expression. "Solitary, unmeaning, and clearly never used, as none of their interiors is finished, sphinx-like for centuries these monoliths have stood sentinel over mere emptiness, the most enigmatical architectural phenomenon in all India, truly a riddle of the sands. Each a lithic cryptogram as yet undeciphered, there is little doubt that the key when found will disclose much of the story of early temple architecture in Southern India."

"As with all the rock productions of the Pallavas, the rathas are of no great size, the largest measuring only 42 feet long, the widest 35 feet, and the tallest is but 40 feet high. They number eight in all, and, with one exception, are derived from the two types of structure hitherto attributed to the Buddhists, the Vihara or monastery, and the Chaitya hall or temple. The exception is that known as Draupadi's ratha, the smallest of the series, as well as being the simplest and most finished. This example is merely a cell or pansala, and the shape of the roof indicates plainly that it was copy of a thatched structure, most probably a form of portable shrine belonging to a village community, as shown by its substructure."

The other rathas go after Arjun, Bhīma, Sahadeva, Dharmarāja, Gaṇeśa etc. These monolithic shrines, were of Śaivite attribution as may be confirmed by the images carved in rock, of a lion, an elephant and a bull.

STUPAS

After this brief treatment of Rock-cut Architecture from a synthetic standpoint where manuals and monuments, both have been given equal prominence, some remarks are called for here and now on the Stūpa Architecture as well. As already pointed out that the Indian rock-cut architecture is predominently Buddhist and Stūpa-architecture is cent percent Buddhist it, therefore, has to be examined in alliance with the rock-cut. Any sacred architecture of the post-Vedic period is fundamentally influenced by the motif of mountains. Caves and mountains have provided the shapes and the forms, to put it in one word, the prototypes for the formative evolution of the Prāsādas and Vimānas. If Hindu Temple is the grand Icon of the Supernal Man "प्रासादं पुरुषं मत्वा पूजयेत्", Buddhist Stūpa is not lesser than it. It is a sacred structure akin to a mountain-temple to enshrine not the deity but the relics of that great Buddhist deity who was all against deification. If caves go with mountains, the cave-temples should also go with the Stūpas, the mountain-temples and the Buddhist architecture has a very rich heritage in this splendid side-branch of Indian Architecture. The Stūpa monuments at the renowned sites of Sanchi Barhut, Amaravati etc. are a superb legacy of Indian art and a brief purview is called for.

The earlier structure of a stūpa used to be formed by bricks which in the Vedic symbolism were the body of the sacrifice, later on the stone took the place of bricks. Thus the substances (the materials etc.) and the symbolism of the Buddhist stūpa and the Hindu temple are identical. Both are sacred places, shrines for devotion accompanied with respective rituals. Buddhist chaitya-halls invariably house a stūpa. Chaitya is derived from citi–this we have already seen. A chaitya, in the Buddhist application with reference to a man-made form is the stūpa. Chaitya in both the Epics is sacrificial altar. Chaitya, Āyatana, Prāsāda and Stūpa, etymologically and originally are piled up seats or altars, sanctuaries in the open and also within an enclosed space (which in the present context is reserved to enshrine a relic). The principal part of a Hindu temple is the garbhagṛha and a Buddhist stūpa too has a garbhagṛha as per no lesser an authoritative sacred book of Buddhists than the Cullabagga VI. 33 where Dhātugarbha (dagabbha) is the stūpa as receptacle of the relics (dhātu) of the Buddha. Prof.

Kramrisch has made some illuminating observations (H. T. p. 197–99) where the plan of Hindu Temple and the Buddhist sanctuaries such as in Gandhāra, at Takht-i-Bahai are to all intents and purposes identical. This is about the lay out. As regards the component parts bearing respective symbolisms we can have some identical manifestations and Prof. Kramisch's observations in this respect are quoteworthy : "An indispensible part of the Buddhist Stūpa is the Harmikā, the railing which surrounds its shaft where it emerges from the dome-shaped pile of the monument. This railing is square (caturaśra koṣṭha); it encloses moreover a small pavilion or chapel—similar to that on the Āyakakhambhas and also to the High Temple of a Drāviḍa Prāsāda—where it is not represented in the shape of a solid cube. The part where the shaft of the central pillar of the Stūpa emerges above the Harmikā is called Devatā Kotuva in Ceylon. It is there that the 33 gods reside, in their heavenly world, above the sphere guarded by the Regents of the directions of space. The hierarchy of divine manifestation is thus accommodated in the monument, it is especially located within its vertical axis, the Cosmic Pillar. The Harmikā and Devatā Kotuva are above the expanse of the Stūpa, and are part of as well as surrounding its axis ; they exactly correspond in place and function to the 5 Vimānas as High Temples".

Further she observes : "The central shaft of the temple holds the divine presence ; it is specially manifested on the lowest level, in the womb, the Garbhagṛha, and on the highest level, above the body of the temple. The vertical column of the temple is the cosmic trunk and its quadruple ramifications are the four directions of space in which the Prāsāda has its extension. The vertical column of Prāsāda and Stūpa alike has its prototype in that vertical shaft across the strata of the Vedic altar formed by the naturally perforated 'bricks' the Svayamātṛṇṇā stones, which were placed in the vertical succession above the Golden Puruṣa".

Further again the closed body of the temple is full of openings not factually but symbolically e g. ghanadvāras and gavākṣas. In its largest form as exemplified on the Hindu temple, the Gavākṣa is an antifix known as Śukanāsā. It shields the structural opening of the Śikhara or superstructure. Such Nāsās (Nasikā ; Kudu) are also repeated horizontally on the kapotālis or cornices ; there they had their place, originally, as attic windows, in which form they have figured since the days of Barhut. The so-called "caitya-hall window" of Buddhist Caitya-hall, the "sun window" which is the correct name of the caitya hall window, is of similar purpose with identical implication. It

admits the light of the sun which reaches the Caitya or Stūpa at the far end of the hall.

Still further Prof. Kramrisch is our greatest interpretor in regard to the crowning part of a temple, the Āmalaka and that of a Stūpa, the Harmikā. Let us quote her fully :

"The Āmalaka moreover in early Vāstuśāstra is also called 'Aṇḍa'; the 'egg' (see Parts VII p. 273). The interchange of these two images has its background in the 'Chāndogya Upaniṣad', III. 19.1 : "The sun is Brahman. Such is the teaching ; and its exposition is this : In the beginning, this was indeed non-existent ; it became existent ; it came into being ; it became an egg ; it lay for the period of one year ; it broke open ; then came the two halves of the egg shell, one silver, one gold" and Śaṅkarāchārya's commentary : "What is emphasized is not the negation of existence (but the absence of differentiation of Name and Form). As a matter of fact, the term 'sat', 'Existent', is found to be used in the sense of 'differentiated name and form' and this dffer-entiation of name and form of the universe is mostly dependent upon the sun." The Brahmāṇḍa the 'world egg' is the true 'Dhātugarbha' and is enshrined as such in the Harmikā or casket above the stūpa. (In this connection it may be possible to see some light thrown also on the corbels or bracket capitals of pillars, etc. where an inverted pyramid composed of tiers (Hīragrahaṇa) rises above the Āmalaka. Their symbolism might be referable to that of the spheres above the sun, from Svarloka upwards. The successive increase in area of the single 'slabs' serves a purpose akin to that of a bracket capital on the pillars, where as no such purpose is served by the same shape on top of the Stūpa. The slabs of this inverted pyramid share with the pyramid of slabs of the temple the function of a solid cover."

With this general introduction to the Stūpa and its affinity with the Hindu Temple let us deal with some more famous stūpas of Indian architecture, our sublime architectural heritage. Emperor Asoka is the founder of Buddhist art as beginnings of Buddhitst art of which pillars and stūpas were the first specimens are credited to the Mauryan age. It was however left to Śuṅgas and Āndhras to contribute to the exuberance of the artistic creations in the domain of stūpa-architecture, its many-sided architectural evolutions and ornamentation with very rich sculptures. Asokan art was fundament-ally religious. Under the Śuṅgas and Āndhras, it naturally followed the same course as the religion, there being a static interval between the cessation of the autocratic art of Ashoka and the beginning of the new or hierarchic phase. Percy Brown has succinctly defined the architecture of the period:

"Of the many places in his dominions that the Mauryan Emperor had consecrated by the erection of stūpas, a certain number from various causes had been invested with special sanctity and importance. Although through the imposing monolithic pillars raised in the vicinity of several of these shrines their sacred character was appreciably augmented, it was to the stūpa, as the symbol of the Buddha, that the pious pilgrims paid their most fervent devotions. At this early date it is fairly clear that these tumuli of brick, endowed as they were with great spiritual significance, were in appearance somewhat uninspiring. They consisted of a masonry hemisphere some 70 feet in diameter and about 35 feet high, solidly constructed of large unburnt bricks each of which averaged the large size of 16 ins. 10 ins. 3 ins. In the centre of this domical mound or aṇḍa (egg) a small space was usually left for a receptacle containing a relic of the Buddha and on the summit as a mark of dignity was raised a wooden parasol (chhattrayashti). This honorific umbrella was in some instances, as in the stupas at Sarnath and Sanchi, made of polished stone fashioned by the sculptors of the Asokan school, as fragments of these have been preserved. The brickwork surface of the dome was finished off with a thick layer of plaster, in which at intervals recesses were left for the reception of small lamps to be lit on festival occasions. Over all a certain amount of colour and gilding was applied, and it was also the custom to furnish them with festoons of flowers and drapery together with banners and flags. As the Buddhist ritual consisted of circumambulating the stupa, a processional passage (Pradakshina patha) was provided by enclosing the monument within a wooden railing (vedica) leaving a space for promenading with an entrance at each of the cardinal points. At least one of these stupas, very much in the state described above, still survives, appearing as a rough white-washed mound rather incongruously set amidst an aggregation of later and more finished artistic accessories. Such is that at the shrine of Shwayambhu Nath in Nepal, which has been continuously worshipped for over two thousand years".

This definition fully corroborates our standpoint from which we have viewed the affinity of the Buddhists Stūpa with the Hindu Temple. It may be pointed out that many of the Asokan stūpas were simply augmented with further elaborations as the case was with those that are situated at Sanchi, Barhut, Buddha Gaya, etc. Many an addition to the existing tumuli were a history of the development of Stūpa-architecture. Railings, Toraṇas or Gateways are a subsequent emblishment at Sanchi—cf. the chart appended in

Percy Brown's book. p. 22 which gives a clear story of these augmentations and enrichments at Sanchi, Barhut and Buddha Gaya in the successive periods of Indian history.

This is a bird's eye view on the northern stūpas. The South also contributed a good number, principally at Jaggayyapeta, Amaravati, Nagarjuni-konda etc etc. cf. Brown p. 48.

CHĀDYA-PRĀSĀDAS AND SABHA-MAṆḌAPAS
(Flat-roofed and Hall-temples).

The Hindu Temple, so far as the main shrine is concerned, whether built in the Nāgara style or in the Drāviḍa style has three principal parts—the Adhiṣṭhāna or Pīṭha (the socle or base), the Garbhagṛha (the enclosed chamber) and the Śikhara or the superstructure. Accordingly the evolution and development of the various phases and styles of temples are manifested in the three main types of temples as are represented and preserved to us thereof in our architectural heritage.

These are:— 1. Chādya Prāsādas and Pillared hall temples
2. Śikharottama Prāsādas and
3. Bahubhaumika Vimānas.

We are concerned in this section with the first type. The chādyas are pillared halls like Sabhā-maṇḍapas; though are not identical both of them take a common architectural origin. The different architectual origins of the Hin u Temple really centre round the superstructure, hence the evolution of the Hindu temple is the evolution of the superstructure. The accessory buildings like maṇḍapas (attached or detached) gopurams, prākāras and so many other allied structures are only the side-developments of that upsurge to which these devotional places had given the motivating force consequent upon the development of the Bhakti cult to which the enormous temple-building activity and magnetic religious fervour for undertaking a pilgrimage to these places, really owed their impetus. All this was the out come of that Pauranic Dharma in which the foundation and dedication of temples and the enshrinement of the cult-deities was the main inculcation.

The chādyas were the first begining in the domain of temples superstructure. The Samarāṅgaṇa-sūtradhāra gives the first place to these chādya-prāsādas and pillard halls in its first formal chapter on temple-architecture, the 49th. Chādya-superstucture may have either a single-roof or multi-roof divichādya (double-roofed) or trichādy (triple-roofed) or malla-chādya (many-roofed). This

gives us a clear indication that these chādyas are really the precursors of the later Bhumikāyuktas (the storyed Vimanas of the South). The chādya-prāsāda in its preinstine shape is a flat-roofed temple and the most predominent characteriestic of the planning of this type is the application of the pillars. Hence, hall-temples, the Sabhā-maṇḍapas and these so-called chādyaprāsādas go along with each other. Further this chādya is not necessarily always flat. The most primitive and primordial shape of a sacred place like the hut of an ascetic or shrine of a deified object was the sloping one. Many a temple relief as exhibited on Sanchi or Barhut illustrates these primitive types. The Central Indian Gupta temples are flat roofed. Similarly some of the temples in Aihole grdup are hall-temples. Fort Kramrisch also supports this evaluation of mine vide H. T. p. 284 3rd para and p. 284 f. n. 88.

With this general introduction to these types of chādyas and halls let us switch over to their representation in the monuments.

Gupta-temples—The Gupta age, the 4th century heralded the dawn of an epoch which eventually developed into what has generally been accepted as time of India's greatest intellectual awakening. Several forces operating at the same time contributed to produce this summit of attainment. These forces were the established rule, the personal patronage and scholarly encouragement, favourable atmosphere and universal spirit for revival of Brahmanism and lastly the unification of the state under one authority and consequently therefore there engendered a national spirit to give birth to ideals which transformed every phase of thought and every form of action. This fortuitious synchronisation of circumstances produced a remarkable effect on the art of the age notably that of Architecture. Percy Borwn has made a lucid estimation of this upsurge in a histrocial perspective and there cannot be a better support of my thesis as elaborated before in the context of the Chādya types—See Indian Architecture pp 57—58.

Chalukyan Temples:—One of the brilliant and characteristic phases of Indian Architecture is what is called the Chalukyan architecture. The contemporary writers have not given a serious thought to one of the most important contributions that this phase is credited to. This phase may be regarded to have provided the nucleus to the evolution of the Hindu Temple in both the styles of its art, the Dravidian and the Northern or Nāgara styles of architecture. Its beginnings at Aihole and Badami, the ancient Vitapi 450 A. D. to 650 are remarkable for this characteristic which got

developed in its clear cut norms in its early phase at all the three ancient Chalukyan capitals—Aihole, Badami and Pattadakal, during its onslaughts in 600 to 750 A. D., This thesis is corroborated by Percy Brown's estimation.—See Indian Architecture p. 63 1st two paras.

The temples known as the Ladh Khan, the Durgā, the Huchchimallegudi, the Jain temple of Meguti, and a series of the four pillared halls (three Brahmanical and one Jain) excavated in the scarp of a hill overlooking the south-east side of Badami, represent the beginnings of Chālukyan architecture. Ladh Khan is notable for a particular form of Dravidian Order, the "Cushion" Capital with an expanded floral abacus supporting the bracket. The Durgā temple though a Brahmanical shrine, may be regarded a Brahmanical version of the Buddhist Caitya hall, adapted to suit the service of the former creed. The ancient township of Aihole in Dharwar, the capital of the early Chalukyan dynasty was one of the cradles of Indian temple-architecture. Most of the temples of this site are of the flat roofed order, and similar therefore to those of the Gupta style of the more northerly latitude, displaying a characteristic which implies an early stage in the process of evolution of Hindu temple towards its two powerful exuberences, as already propounded in the preceeding pages. Other stages of development in the Chalukyan temples may be enumerated:

"For instance in the most primitive of all, the shrine is in the body of the building, with nothing on the exterior to mark its position from outside. Afterwards a tower was added over the shrine, not only to give this central feature dignity, but also as a means of distinguishing the temple from other buildings. Later, the shrine, or cella, was contained in a structure projected from the western end of the temple and surmounted by a tower. This last development caused the sanctuary to form a kind of annexe attached to the body of the temple, the shrine and tower combined comprising that portion of the structure known as the Vimāna, thus laying the foundation of the Dravidian style to emerge in its great elegance."

Together with these formative stages of chalukyan architecture may be added a further stage where the beginning of that significant feature, the Śikhara is also observable e. g. Durgā temple. At Aihole in addition to the series of Indo-Aryan or Nāgara or Northern, there are several examples of the contrasting or Dravidian tpyle as well e. g. the Jain temple (No. 39) and the Meguti temple. But these are unpreserved structures.

For a very early complete example of Dravidian style in this region we have to turn towards Badami the later seat of the Chalukyan dynasty. Two shrines—Mahākuteśvara and the Malegitti-Śivalaya are the examples of this manifestation.

The next stage in the development of the temple-architecture of the period in these parts may be studied in the temples of Pattadakal, the third of the Chalukyan capital seats. It is remarkable for the exuberance of both the styles exhibited side by side. There are ten temples of consequence at this renowned site, four of which are in the Indo-Aryan or Northern or Nāgara-style and the six in the Dravidian or Southern as tabulated hereunder:—

Nāgara	*Dravidian*	
1. Papanath temple	1. Sangameśvara	5. Sunmeśvara
2. Jambulinga	2. Virūpākṣa	6. Jain temple
3. Karsidhesvara	3. Mallikārjuna	
4. Kāśīnātha (Kāśīviśvanātha)	4. Galagnātha	

Most of these temples were executed at the time when Chalukyan dynasty reached the height of its power under Vijayaditya (696-733) and Vikramāditya II (733-46) and thus the actual meridian of the style at Pattadakal was attained in the first half of the eighth century. Some of these temples especially the Virūpākṣa is noted for the lavish display of superb sculpture, the plastic ornamentation. For details see Percy Brown p. 84.

Apart from this centre of the architectural movement associated with the Early Chalukyans as was confined in the triad of their capitals, a minor development of somewhat similar character took place in the same region of Dharwer, at Alampur, a village on the west bank of the Tungabhadra river in the Raichur district of the old Nizam Dominions where there is a group of six temples almost identical with those listed above. They are situated inside a fortified enclosure in the same manner as at Aihole. They are however more in the style of Papanath as they have Indo-Aryan Śikharas and may accordingly be assigned to the same date of the later half of the 7th century.

BHAUMIKA VIMĀNAS
(THE SOUTH INDIAN, THE DECANESE AND THE GREATER INDIA TEMPLES)

It has already been remarked that the piled up altar, the base, the dolmen-cell, the Garbhagṛha and the superstructure are the

architectural constituents of the whole image of the temple; it rises like a mountain. Further in our accounts of the origin of temple-architecture, the Citi, the altars, the dolmen (cf. the menhir), the shed of Initiation and the Tabernacle along with its structural and superstructural evolutions on the motif of the image of the "Mountain and the Cavern", the superposition of the shapes along the vertical Axis and its form (i. e. vertical axis) we have already got some idea of the different factors that have contributed in the making of Hindu temple in all its types. The chādyas and halls have their prototype in dolmen and the Bhaumika Vimānas and the Śikharottamas have their prototypes in the image of the mountain. Their rich ornamentation is a memory of the primitive Tabernacle, like the temporary devagṛhas with exuberance of forest verdure the leaves for ornamentation, the Kadalīs for pillars and so many other allied decorations. These manifold bhūmis or miniature Śikharas in the fully evolved Hindu temple are replicas of the image of mountain. The Vedic seers have sung the analogy of world and the pillar and the world-pillar inheres in the world-mountain and transcends it where it becomes visible above the highest stratum of the superstructure. Prof. Kramrisch makes a metaphysics of the analogy (H. T. 175-6) and it is worth quoting. "The mountain shape of the Prāsāda is the sheath of its vertical axis. The vertical axis is clothed in it, from the floor of the Garbhagṛha to the shoulder course of the superstructure; from there however it is seen to exceed the body of the superstructure (Śikhara, in Nāgara temples; the series of Bhūmis in Drāviḍa temples). Encased in the vertical shape of a pillar, which is circular, as a rule, or polygonal (Parts VI and VII), it transcends the slopes of the superstructure although for a short distance only. It is therefore called Grīvā or Neck. It emerges from the body of the Prāsāda to be capped by a dome (Figs. f-h; Part VI) or clasped by an Āmalaka (Pls. I, XLIII, LXXI). These crowning shapes of the Pillar support the finial of the temple. Its Highest Point, the end or beginning of the axis of the temple, is in the centre of the hollow shaft above the Liṅga or image in the Garbhagṛha, above the Womb and Centre of the Cosmos and above the Navel of the Earth."

"The finial is beyond the body of the temple, which has its extension in Antarikṣa, the mid-space. Above its High Temple (harmya) cupola (śikhara); (Figs. g-h, Pt. VI) above its being gathered by the Āmalaka (Fig. i) rises the finial, the Stūpikā, in the Empyrean and up to the Bindu, its Highest Point, the limit between the unmanifest and the manifest."

In the Bhaumika Vimānas of the South, the pyramidal Super-structure is the rule and if there are exceptions, they prove the rule. Now Bhūmis and Śikharas, these are the two important words in the Indian texts of Vāstuśāstra which must be understood fully to comprehend the real genesis of the superstructure of Hindu Temple. The Śikhara as its etymological meaning conveys, is the mountain or peak-like super-structure above the perpendicular walls of the Prāsāda. It is curvilinear as a rule, as is represented in the fully evolved Hindu temple, in the north where it is the indespensible part of the exterior of the Prāsāda. The authoritative texts like the Samarāṅgaṇa-sūtradāra speak of this Śikhara in the terms of Mañjarī which is its another name. Mañjarī is shoot and this synonym is remarkable not only to connote the Hindu Temple as Puruṣa-mūrti (vide the Organic Theory) but also illustrates the vegetable decorations which were the exuberance of the tabernacles which had lent their bit towards the ornamentation of this sacred place of Devas According to Kramrisch: 'This refers to the form of the superstructure' as much as it follows logically by way of natural symbolism from the rite of Garbhādhāna. The vivifying Germ (Garbha) and the Embryo of Splendour (Hiraṇyagarbha) are within the walls of the Garbhargṛha and have their images in the construction of the temple'. The workmanship of the superstructure of Hindu temple in both the styles, the Drāviḍa and the Nāgara, consists of arithmetical progression, Prof. Kramrisch has some very lucid remarks on these progressions belonging to both the types and I am tempted to reproduce them to my readers here (H. T. ft. n. p, 166-7);

"The height of the storeys (bhūmi) of the pyramidal superstructure diminishes, on certain temples, in an arithmetical progression; each successive storey is 1/4 or also 1/8 less than the lower. In this progression however is not included the ground floor (saṃsthāna) of the temple. In order to moderate the abrupt superposition of the pyramid with its miniature storeys on the relatively high wall of the 'cubical' Garbhagṛha, this wall frequently appears divided externally in two storeys, each complete with its base, pillars, capitals and roof cornice. This architectural consideration belongs to the Cola age (Temples at Tanjore, 1000 A. D.; Gangaikonda, Colapuram about 1025 A. D); and while later temples show an increase in the number of simulated storeys on the walls on the Garbhagṛha (Temple at Tiruvarur, about 1600 A. D.), Pallava temples are free from this aesthetic deceit (Shore temple at Mamallapuaram, Kailāsanātha temple at Kāñcīpuram (650-700 A. D. approximately). See Plates LI-LIII: LVII-LIX in P. Brown, Indian Architecture and Part VI."

"The superposition of the pyramidal, storeyed form on the vertical walls of the Garbhagṛha, though generally is not necessarily always observed. The pyramidal structure of the Vaikuntha Perumal Temple (ib. Pl. LIV) rises directly from its socle. Here too, the the storeys are not simulated, miniature replicas; they house a Garbhagṛha on each floor. In the majority however, of the temples in South India, including the Kanarese country, a complete structural pyramid of this type, appears raised on the Saṃsthāna, the ground-floor or one storeyed temple This development appears already completed in the seventh century rock cut temple models which an ingenious king (Narasiṃhavarman) was pleased to have cut out of the rocky boulders near the shore of Mamallapuram."

"The diminution of the height of the Bhūmis of the superstructure of a South Indian temple is carried out according to more than one consideration, such as the number of these 'storeys', etc. (see Part VII, Chap. 5)."

"In Northern India, the diminution of the Bhūmis of a curvilinear superstructure such as the Śikhara of an Orissan temple does not form a series; if, for example, there are ten Bhūmis, of which the lowermost has 5 units, the height of the following is: 4 7/16; 4; 3 15/16; 3$\frac{3}{4}$, 3 5/8; 3 9/16; 3 7/16; 3 5/12 and 2. ('Canons of Orissan Architecture,' op. cit. p. 111) No diminution however in a geometrical progression can be seen, as stated by M. M. Ganguli, 'Orissa and Her Kemains', p, 128 on the accompanying Plate II."

This is one interpretation of the successive Bhūmis in the Southern Vimānas. Another interpretation is based, as already hinted at, on the image of the cavern. It is the place of the Omphalos, in the womb of earth and below its surface which also became integrated into the Hindu-temple. The cave, underground, the crypt is the main Garbhagṛha of several preserved temples. Kramrisch has made a very brilliant case of this secret, according to one of the most fundamental elements of Indian culture namely the three Guṇas, Sattva, Rajas and Tamas, active in every form of manifestation which have in the form of the temple a comprehensive visual symbol: 'Tamas, darkness, is the descending tendency, it is the quality proper of underground crypt. Above it, the Prāsāda arises, ascends in height according to the Sattva Guṇa, and expands its perimeter as far as Rajas, requires it. "Tamas, darkness, is the causal body, the 'kāraṇa rūpa.' As it was in the beginning when out of primordial darkness evolved all things that be, so also from the deep, central darkness of the Garbhagṛha the meaning of the temple shines forth on its walls and

reaches the high point of the finial. Thus in certain temples there are two Garbhagṛhas; above the crypt-Garbhagṛha is the upper sanctury, accessible or visible to all. The secret chamber of the Sūrya temple at Modhera, Gujerat, built in 1026-1027 A.D., is sunk to eleven and a half feet below the level and is underneath the floor of the Garbhagṛha of the temple. At Aundh, the principal Liṅga is in the crypt below; in the upper Garbhagṛha is another Liṅga; steps lead down into the crypt from an opening in the floor of the upper shrine. The present-day temple of Somanatha Pattan, Kathiawar, also has a lower shrine. It surrounds the Somanatha Linga, symbol of the self existent Omphalos. A 'duplicate' for every day worship is in the upper shrine. In the Jambukesvara temple, near Trichinopoly, in South India, the Garbhagṛha below the level of the ground enshrines a Svayambhu Linga standing in water."

"Sanctuary upon sanctuary, they are superposed in several storeys, particularly and consistent with the total symbolism of the respective temples, in South India There, the special application of this principle is to those temples of Viṣṇu where in seven superposed storeys, the lowermost cell enshrines the standing (sthānaka), the next higher one the seated (āsana), the one of the third floor recumbent (śayana) image of Viṣṇu, as in the Vaikuṇṭha Perumal Temple at Kancipuram, and in the yet higher storey the images of Brahmā, Mahāviṣṇu, Sadāviṣṇu and the four armed Nārāyaṇa. 'Like a hollow cane of bamboo (veṇurandhravat) are the cells placed one above the other in the vertical axis of the Prāsāda' 'Vaikhānasāgama' VI".

With this introduction to the metapysical implication and the implied ritual of image-worship, the different varieties of the architectural superstructure may be dwelt at some length. As already indicated the superstructure of Indian temples is principally of two types—the pyramidal and the curvilinear which is Śikhara. The former is the topic of the present section in the context of the Bhaumika Vimānas of the South. It may be pointed out at the very outset that in the South Indian text this pyramidal superstructure is designated by the number of its storeys and accordingly the chief distinguishing characteristic of the Drāviḍa Prāsāada (as we have already, seen—vide the classification of Prāsādas) is Bhūmis. Śikhara, in these texts like Mayamata or Īśānaśiva-gurudeva-paddhati is the name of the dome shaped massive roof of the small miniature-temple (kṣudra-alpa-vimāna). The observation of Prof. Kramrisch therefore, is significant (See hr book on page 182).

It may be however, pointed out that we cannot be dogmatic in our assertion that all the temples belonging to the South are Bhāṇmikā

Vimānas. Architectural traditions in India from the very early beginnings of the Christian era had got amalgamated—vide Pt. I. An out-line history of Hindu Architecture both as science and art—and these traditions are very substantially illustrated in the early monuments especially in the early Chalukyan temple-architecture at Aihole, Badami and Pattadakal. Mahakuteśvara and Papanath are the leading monuments where this observation can be amplified and corroborated. Further the corner stone of my thesis that Drāviḍian style is earliear than the Nāgara style has been laid out from these specimens of the Chalukyan genesis.

But as in South Indian Vāstuśāstra the entire super-structure is discussed according to the number of storeys (Bhūmis) and as it bears no special name, I have termed the types of the South Indian temples as Bhaumika Vimānas in which the pyramidal superstructure is the most predominent elaboration in contrast to the Northern counterparts where curvilinear (śikhara) superstructure is of singular interest.

Now this pyramidal superstructure, in its generally accepted shape in South India is composed of three main factors of which (1) the recessed tiers or storeys are the chief and supporting element; (2) above the last of these storeys rises the miniature Vimāna or Harmya, the High Temple; (3) each storey is surrounded by a rampart or enclosure composed of chapels. In this its complete form, the pyramidal superstructure is an amalgam of several independent types of buildings. Prof. Kramrisch has dwelt at length on the successive evolutions of this type of structure and has also made a brilliant presentation with its corroboration in the existing monuments.

Pyramidal superstructure has many varieties based on the principle of stratification in receding tiers. It has two main branches, the one having a flat or sloped roof, its cornice or eaves, for its unit and the other having a complete storey for its unit. The former has already been dealt with in brief outline in preceding chapter—Development of Temple Architecture and the latter concerning bhūmis may be taken up here.

This pyramidal superstructure composed of storeys (bhūmis) again may be viewed from three angles namely the stepped trunk of the pyramid formed of single storeys, the high temple Kṣudra-Alpa-Vimāna and enclosure of chapels. The first phase is rudimentary manifestation as is illustrated in the temples like those of Bodh

Gaya and Sarnath. The High Temple or Kṣudra-Alpa-Vimāna, are the superstructures of the temples in the Kanarese districts and through out that part of South India generally known as Drāviḍa. The reliefs of Barhut and Sanchi display the prototypes of those superstructures especially the Nāga or Fire Chapel. This is the representation of the pre-Christian century (1st century B. C.), later on aggrandised and consolidated in its architectural form as illustrated in the Draupadi Ratha at Mamallapuram. The flat-roofed sancturies of Pallava and Chola age such as the temple at Enadi examplify the 'small' south Indian temple (Alpa-Prāsāda) without the rampart of chapels. The great temple at Tanjore also illustrates this evolution in the top of its many-storeyed super-structure.

Now coming to the third manifestation of this superstructure namely the inclosure of chapels, I may reproduce Prof. Kramrisch's rendering: "In a fully evolved South Indian temple or Jāti Vimāna of about 1000 A. D. the high pyramid of the Bhūmis of the superstructure rests upon upright walls in which is encased the Garbhagṛha. They are frequently given the appearance of two storeys, one perpendicularly above the other as in a vast building with many niches (ghanadvāra), flanked by pilasters in each storey and heavy cornice moulding, the eaves, above each (fig. h). Both these storeys occupy the same floor space and together they form the perpendicular walls on which is placed the pyramidal superstructure. The storeys of the pyramidal superstructure are comparatively on a miniature scale but they too have their niches and pilasters. In front of them, however, on each floor on all the four sides, is a series of small chapels or cells, oblong or square, and vaulted or domed, correspondingly (Figs. f-h). These chapels are called Kūṭa and Koṣṭha, etc. placed close to the cornice of each storey they fill the gap between the receding tiers and give the outline of the superstructure the appearance of leading straight and unbroken from its base to its shoulder course".—H.T. p. 197.

The development of this variety of superstructue can be traced from the ancient Buddhist monasteries of Gandhara, Ajanta and Nasika. The open or hypaethral temples also contributed to this exuberance e. g. Causaṭha-Yogini-temples. Kramirsch corroborates: "This type of open air temple appears to be the basic form of the Court of the Stūpa, at Takht-i-Bahai. But it is also preserved in the surrounding wall of cells of some of the great temples set up by the Pallavas in South India; the Shore Temple at Mamallapuram (Fig. g) and the Vaikuṇṭha Perumal Temple being the youngest (710 A. D.). Eachof these large temples with its accessory buildings is surrounded

by a wall of chapels. Apart from this enclosure of the whole precinct, another corresponding row of chapels surrounds the Prāsāda itself. In the Shore Temple it has the form of a wall of cells separated from the body of the temple by an open air passage. (Fig. g). In the Kailasanatha Temple however, another great structural temple of about 700 A. D., at Conjeeveram, the single chapels of the enclosure, are attached to the walls of the Prāsāda from which they are seen to project,—also in the rock-cut Kailāśanātha temple at Elura whereas in the Vaikuntha Perumal Temple they are altogether embodied in the temple of which they form part of the outermost but covered ambulatory. These various solutions are stages in a process of drawing towards the Prāsāda the enclosure wall of the chapels and incorporating it. Nearest amongst south Indian temples to the original open-air type is the Shore Temple".

"While the Drāviḍa temples incorporate the theme of the hypaethral temple, the enclosure formed of chapels in the body itself of the Prāsāda, the enclosure of cells around and the main temple, belongs to some of the great shrines in distant parts of India, such as the Virupākṣa temple in Pattadakal, or the Navalinga temple at Kukkanur (Gadag), in the Kanarese country, the Kesava temple at Somanathapur in Mysore, and in Kashmir, the sun temple of Martand and the Avantisvami temple in Avantipur. Amongst Jain temples that of Vimala Shah, A, D. 1031, on Mt. Abu, the Neminath Temple at Girnar, Kathiawar, or the Chaumukh Temple at Ranpur, Jodhpur, built by Sutradhara Depaka in 1440 A. D. are cloistered by a range of cells, each of a shrine with an image."

The Sāndhāra Prāsāda having an enclosed or open circumambulatory passage round the Garbhagṛha is also a contribution of this side development.

"The surrounding wall however belongs particularly to Drāviḍa temples. Thus the enclosure made of chapels too, kept its independent open-air existence while it also came to function as an essential part in the large Pallava temples, the first structural temples built of stone which were set up in the Drāviḍa country. Finally it bceomes an adornment of the supersturcture of the Prāsāda."

"This takes place not on one level only, but is repeated on the floors of the many-storeyed superstructure (Fig. f). In receding tiers, a wall of cells forms the continuous parapet above which emerge the walls of the Garbhagrha of that floor, these again carry the parapet of the floor above. An open air circumambulatory is thus provided for each respective floor; it is hidden from view by the parapet of

cells (Fig. f; also Fig, g); this in addition to its ritual suggestiveness has monumental effectiveness for the recess of each upper storey, the step of the pyramid, is thus masked, the outline of the superstructure appears unbroken, and enriched by the bold three-dimensional discipline of the domed and vaulted chapel shapes of its parapets or enclosures." The theme of the pyramid as represented by the Vaikuṇṭha Perumal temple comprises entire Vimāna and Kramrisch's observation of the architectural paradoxes are worth quoting: "The Vaikuṇṭha Perumal temple, however, with its Garbhagṛhas in the centre of each of its four storeys, reveals the original purpose of accommodating a sanctuary in each storey of the pyramidal superstructure to the same extent as does the outer shell of this Prāsāda, from the ground level to its 'High Temple'. As a rule however and seen from the outside the consolidated trunk of the pyramidal superstructure simulates only a Garbhagṛha in each of its storeys (Fig. h)". "The paradox is obvious in the history of this type of the superstructure of the temple. The hypaethral temple with nothing in the centre or near to nothing is here amalgamated with a monumental structure in its centre. It towers in each storeys above its surrounding enclosure with its many small shrines". "Further paradoxical developments accompany the evolution of this type of the superstructure. The surrounding chapels, it has beend pointed out, of the ground floor of the Kailāsanāth Temple at Kancipuram, were attached to the body of the building and drawn into the outer walls of the temple circumambulatory. Similarly, from the Cola age onward, the parapet of chapels on each floor of the superstructure is attached to its walls; the open air circumambulatry itself a vestigial part of the hyapethral temple, is pressed out of existence. The enclosure of cells is now an embelishment of the wall of each Būhmi, sculptural part of the monument (Fig. h)." "The fully evolved pyramidal superstructure having attained its perfect form and greatest height (190 feet) about the year 1000 A. D. in the Bṛhadīsvara, the 'Great Temple' in Tanjore (Fig. h), loses it in the following periods in proportion to the increasing height of the gate towers, the Gopuras of its enclosure walls, Taken as a whole, the South Indian temple irrespective of the flat roofs of its extensive pillared halls, in the centuries of its greatest expansion (Temple of Srirangam, 13th-18th century; the temple of Tiruvannamalai, Cola period and later) is a hypaethral temple, an open air sacred enclosure, with high walls, be they as many as seven, marked in the four directions by Gopuras whose height decreases towards the centre, where the main temple is marked by its position. Its presence is inconspicuous, its diminutive

superstructure barely noticeable as it emerges from the flat roof of a covered court. With its many subservient buildings immersed in the air space and fenced off by repeated high walls and their Gopuras, the total South Indian temple-town covers the ground marked in the four directions by the sequence of the Gopuras of successive walls, within the outermost enclosing wall. The shrinkage of the superstructure of the centre, the diminution of the height of the main temple is a paradox of which the meaning is adjusted by relating it to the enclosure (paridhi, prākāra) and its architectural form, the hypaethral temple. Between the beginning and the end of this development lies the formation of the superstructure of the South Indian temple, a pyramid of many storeys each with its enclosing parapet of chapels and crowned by a small High Temple (Vimāna)". "The devolution of the South Indian Prāsāda, the shrinkage of its height in comparison with the Gopuras, the gate towers of the surrounding walls, whose height increases with their distance from the temple in their centre, appears a paradoxical development, but it may be understood as a return to type. Few representations and no structural examples of this type are preserved. The representations are of an early age and from central and northern India, from Barhut and Mathura. A high structure is seen there; it encloses and encases a small building which is the main temple. The central sanctuary surrounded by structures larger than itself shows here the principle of the Garbhagṛha extended to the building that holds it. The small central temple with the image in the Garbhagṛha is the Sanctum Sanctorum; comparable in its position to the "Throne of Supreme Blessedness."

Now with this brief introduction to the main elements of the temple-architecture, characteristic of the South Indian temples let us have a bird'o eye view on the existing monuments characterised by these superstuctures, the pyramidal. From the historical standpoint there have been as many as four characteristic evolutions and developments in the art of temple-building in this part of the country—the Pallava, the Chola, the Vijayanagaram and the Madura. I have, elsewhere—vide my "Hindu Prāsāda, caturmukhī pṛṣṭhabhūmi"—, in my own characteristic way treated the fourfold background giving rise to this most stupendous, zealous, painstaking and liberal endeavour on the part of Indian people comprising not only the common men and women at large but also the nobility of the clan and that of the mind. Among these, the four foundations, the remarkable impetus came from the ruling dynasties, the Pandayas, the Cholas, the Vijayanagaram and the Nayakas of Madura. The building art as flourished in their respective reigns is characterised and designa-

Simhavishnu "lion kings". Later, its flame glowed with renewed brilliance in the hands of the Cholas and subsequently in Southern India, as their architectural undertakings eloquently testify. But perhaps its most potent influence was that which it transmitted beyound the seas, to Indonesia, where its effulgence, reflected in the vast monuments of those civilizations, and shone with even greater splendour than in the country of its origin."

Chola Temples (Circa 900-1150 A.D.): The decline of Pallava supremacy brought about an unsettled state of Tamil Country. Conflict ensued between the various dynasties—the Pallavas, Cholas Pāṇḍyas and Rāṣṭrakūṭas all striving for supremacy. The struggle for power ultimately ended in the favour of the Cholas and in due course they became paramount in the south. Their dynastic history began about 900 A.D. and their rule attained its meridian a century later. Naturally the buildings attributed to the Cholas during the 10th century are not many, nor are they large and they imply a local rather than an imperial development. The following more important local examples may be cited.

(a) In and around the state of Pudukkottai.

1. The Sundareśvara temple at Tirukattalai
2. The Vijayālaya temple in Nartamalai
3. The triple temple, the Muvarkoil in Kodumbelur
4. Mucukundeśvara in Kolattur-taluk
5. Kadambar in Kadambarmalai Nartmalai
6. Bāla-subrahmaṇya in Kannanur Tirumayam-taluk.

(b) Similar structures are found as far south as S. Arcot, such as in Tiruppur, Visalur, Panangudi and Kaliyapatti in Kolathur, and in Enadi, Tirumayam-taluk.

These Chola structures are characterised by a noticeable exuberance. Their productions are in the line of Chalukyan temples rather than Pallava counterparts as is evident from the shape of the domical finial of the Śikhara which has a double flexured contour similar to those in the temples of Badami and Pattadakal.

Among the more distinctive early Chola temples reference may be made to the temple of Koranganatha at Srinivasanalur in the Trichonopoly district. Its peculier name is due to a local legend which records that on completion it was defiled by a monkey (korangu) and so it was never consecrated. Another particular notice in the context of the departure from Pallavas is illustrated from an altogether new phase in the Dravidian order (see Brown p. 103 first and second paras). These are the introductions of the abstract conventions in the mouldings in place of animalized motifs (cf. lion motif). Another feature

is the emergence of a new animalized motif (cf. a row of gryphoned heads) which continued throughout the subsequent periods.

The later phase of Chola art culminated in Śiva temple of Tanjore, the Bṛhadīśvara what is described as the largest, the highest and the most ambitious production of its kind. It is a landmark in the evolution of the building art in South India. Equally large, high and ambitious an undertaking is illustrated in another great temple at Gangaikonda Cholapuram. These Chola monuments testify to the vast power which is characteristically revealed in these two notable examples of Bhaumika Vimānas of the superlative type. The rise of Chola power synchronises with the rise of Chola architecture. In comparison with the temple of Korangunath they are as cathedrals to a parish church. This latter example is notable for a new element of temple-establishment, the pillared assembly halls—Sahasra-maṇḍapams or Śatamaṇḍapams. Yet another characteristic of these two temples is the statuary in which Naṭarāja Śiva and his manifold manifestations like Caṇḍikeśānugraha-mūrti is of special interest. Other images are flying apsarās sprowling gaṇa-devatās and contorted Yakṣas, etc., etc.

Pāṇḍya Prākārams and Gopurams. The Cholas were succeeded by Pāṇḍyas who contributed not so much to the orthodox scheme of temple-building, as to the outer schemes, thus laying the foundation to that grandeur which became the glory of Madura, the great Gopurams and splendid Prākārams. "Upto this point it had been the practice of the builders to apply their finest craftsmanship to the body of the temple itself, and specifically to its most sacred part, the Vimāna, which they made the most resplendent feature of the temples of the Cholas. With the advent of the Pāṇḍyas this usage ceased, and instead of the sancturary continuing to be the central architectural production the builder's skill was diverted in order to give prominence to some of the supplementary or outlying portions of the temple scheme".

Jīrṇoddhāra is as good a pious act as foundation or the dedication of the temples in the tenets of Pūrta-dharma. Accordingly the scattered and distributed sacred shrines or sites of great religious antiquity attracted the notice of these Pāṇḍya rulers who instead of erecting quite a new superstructure on the original structures evolved out a grand scheme of Prākārams and Gopurams which later came to be so majestic and so grand that the later Dravidian architecture (especially at Madura) could obtain a culminating point. I have already written something on Gopurams and Prākārams—vide one of the last chapters on the subject—Part V.

Some of the notable examples of Gopurams built under the Pāṇḍya regime are Sunder Pāṇḍya Gopuram, one on the eastern side of the

temple of Chidambaram, another, on the eastern side of the inner enclosure of the temple at Tiruvannamalai and a Gopuram of the great temple at Kumbhakoṇam. There is however one txample of a complete temple of the Pāṇḍya period. This is the temple of Airāvateśvara at Darasuram in the Tanjore district. It is remarkable for that richness, which later became the characteristic of the Vijayanagar.

Vijayanagara Style (1350—1565 A D.) The Dravidian style under the Vijayanagar dynasty is characterised by its greater fullness, in which there is marked freedom and fluency towards the expression of aesthetic aspirations of the builders and thus the building art no more remains a mechanical art, it becomes as fine as sculpture and painting. The forceful power which dominated the Dravida country at that crucial time of Indian history when the Mohammedans were overrunning the rest of India, was not only responsible for building up a dominion of exceptional stability and strength but also was instrumental in introducing some very rich elements of Dravidian art of architecture and sculpture both. Percy Brown says : "Indian architecture, at all times remarkable for the profuseness of its applied decoration, at this stage of its development reached "the extreme limit of florid magnificence". It is a record in stone of a range of ideals, sensations, emotions, prodigalities, abnormalities, of forms and formlessness and even eccentricities, that only a super-imaginative mind could concieve, and only an inspired artist could reproduce. The sole parallel, but a relatively remote one, is the Baroque movement in Europe, as it is expressive in a degree of the same political and social conditions. And just as the Baroque was the final issue of the Renaissance, so the almost contemporary movement in Southern India represent the supremely passionate flowering of the Dravidian style."

Rise and development in the temple-ceremonials brought about new establishments in the temple scheme. This rise of ceremonials was primarily due to the more pronounced anthropomorphic attributions of the deity. In addition to the main-temple, manifold shrines, pillared halls or maṇḍapams and other annexes may be attributed to this side-development. Amman shrine and Kalyāṇa Maṇḍapam are additions to the temple-scheme of the time. (For details see Brown.)

Temples of the time are distributed throughout the Dravida country, but the finest and most characteristic group is the city of Vijayanagar itself, which was the capital of this great empire and for a time one of the foremost cities of Asia, which occupying a strong strategic position on the banks of the Tungabhadrā river, stood like a bulwark against the ever-present menace from the North. The

principal temples in the city of Vijayanagar are the Vitthal and Hazara Ram. There are also several others of no mean interest. The former is by far the most exquisitely ornate building. Begun by Raja Krishna Deva in 1513, it was continued by his successor, Acyuta Raja (1529-42) but owing to its elaborate character was never entirely firnished. There are atleast six main structures mostly in the form of pillared halls. The central building is dedicated to Viṣṇu Panduranga Vithova. Its lack of height is perhaps due to its unfinished character. It is a long low structure of one storey averaging 25 ft. in height and 230 ft. in length, alighted from east to west.

The Hazra Ram may be referred to be the Chapel Royal. It is highly ornamental a temple. Other notable buildings of the city are secular, in character such a 'Throne Platform' or 'House of Victory'. Percy Brown makes a very brilliant picture of these (see his work.) Other notable examples are distributed at Vellore, Kumbhakonam, Conjeevaram, Tadpatri, Virinjipuram and Srirangam As regards the monument at Viringipuram in the N. Arcot district, it is Margha sakeśvara temple. At conejevaram there are two temples, the one Varadarajaswami famous for its Śatamaṇḍapam and the other Ekāmbara-nāth famous for its Sahasramaṇḍapam Tadpatri is famous for its two gopurams belonging to the temple of Rameśvara and finally Śrirangam for its Horse Court or Śeṣagiri-maṇḍapam with its colonnade of furiously fighting steeds each rearing upto a height of nearly nine feet, the whole executed in a technique so emphatic as to be not like stone but hardened steel which shows that the repetition of the 'horse' motif in the pillars, of this period had attained a sort of finality of extravagance, nevertheless betokening some implied spirit of the time, something of the temper of the time, a feeling of exultant invincibility translated into the cavaliers nonchalantly astride gigantic rearing chargers, and engaged in furious combat with fabulous creatures.

Madura, the final phase (from 1600 A. D.) Even the brave Vijayanagar succumbed to the confederacy of Mohammadan principalities in the Deccan and so the Hindu element in the Tamil country, owing to the pressure of Islamic aggression, was forced further south eventually to establish itself with the city of Madura as its capital seat. Here and in certain other towns like Srirangum and Trichonopoly under a dynasty known as the Nayakas; the Dravidian style assumed its final form which has lasted almost until modern times. Trumalai Nayaka (1623-1659) was the greatest patron of Madura style which was in a way revival and continuation of the building procedure of the Pāṇḍyas (1100-1350) which as we have seen, consisted in improving and extending the existing shrines so that these attained much

greater magnificence. We have seen the Mayamata's definition of a Prāsāda denoting not only the central shrine but also the manifold temple-establishments like Maṇḍapa, Prapā, Prākāra, Gopura etc. Accordingly this Madura style is the greatest exponent of that ideal where Gopurams, Prākārams and Maṇḍapams formed the principal fascinations for the patrons like Nayakas to undertake the superb creations of architecture, the majestic and soaring Gopurams strong and fortified Prākāram along with spacious pillared halls, the Sahasra-maṇḍapams and so on so forth. All this was necessiated on account of the corresponding expansion in the temple ritual conseqnent upon the instituion of worship wnich had attained by this time a powerful upsurge where the pilgrimage to such sacred and sanctified sites was one of the dominating ideals of Hindu life. The Doctrine of Pūrta-Dharma had its full play now. Further, the royal patronage to the temple-building art of the day also gave a new importance of the deity of the temple. Wider powers were accredited to the deity who was envisaged in dual capacity both a spiritual head and temporal head. Accordingly twofold planning of temple emerged, one inner covered and most sacred part housing the deity in his cella and another outer, open and more public. The latter accordingly, was therefore utilised for the processional and festival occassions. Royal ideal of the manifold courts and gateways was fully imparted to the temple-scheme of the day. It was therefore, but a logical step to give more attention to the grandeur and the splendour of the temple rather than to concentrate on temple-cella, the Vimāna or Garbhagṛha. The soaring structures and superstructures of the Bhaumika Vimānas comprising of many storeys from one to twelve now became of the Gateways, the Gopurams which according to Śilpaśāstras like Kāśyapa and Mānasāra could be made upto 16 or 17 storeys, and they did take a good number of them. The Madura-Gopurams are remarkable architectural creations of this aftermath. Further in addition to the munificent patronage of the ruling kings, liberality and piety of the multitude of men also had their full play towards the foundation and dedication of some additional structure in the very enclosure of the temple, hence shrine of saints and pillared hall maṇḍapas of varying magnitude sometimes having as may as 1000 pillars sometimes doing only with 100 pillars werealso liberally contributed. All this made a temple a city, and the evolution of temple-cities and temple-towns has already been dwelt upon. Dravidian temples of this period aré remarkable for two eminent elements —exteriorly the Gopurams and interiorly the pillars. As regards pillars, though they do not have that florid elegance of the previous style, but nevertheless, do retain a vigirous character. "As an example there atleast a thousand pillars in the temple of Madura, in addition to

an equal number in the hypostyle hall, making a total in this one temple alone of two thousand pillars in all. They are mainly of four kinds, consisting of a square moulded and patterned example, the simplest of all; the rampant dragon; the figure, usually of a deity; and the portrait, often of the donor or one of his family. All of these support ponderous and complicated superstructures in which crouching dragons and foliated brackets predominate."

The number of temples of the Madura class is nearly thirty, but the following may be cited as more important ones:—

1. Madura—Mīnākṣi-Sundareśvara
2. Śrīraṅgam—Ananta-śāyī-Nārāyaṇa (Raṅganātha)
3. Jambukeśvara
4. Tiruvarur
5. Rāmeśvaram
6. Chidambaram (Naṭaraja)
7. Tinnevelley.
8. Tiruvannamalai
9. Srivelliputur.

N. B. The details may be purviewed in Brown.

Mīnākṣī-Sundareśvara: It is a double temple, as it has two separate sancturies, one dedicated to Śiva and the other to his consort the goddess Mīnākṣī. These two shrines, which are really temples within a temple, occupy the largest space inside the main enclosure. The outer wall of this surrounds an area which is nearly a square as it measures approximately 850 feet by 725 feet, with four large gateways one towards the centre of each of its four sides".

"Large and small there are eleven gopurams to the Madura temple, the four outer ones being of the first class as they are all over 150 feet high. There is one other important and spacious structure in the temple scheme and that is the court of a thousand pillars, added about the year 1560 by Arianayakam Mudali Minister of the founder of the Nayak dynasty."

"Outside the main enclosure, but in axial alignment with the eastern gopuram from which it is separated by an intervening busy thoroughfare of traders' shops, is the large supplementary hall of the Vasanta or Pudu Mandapam, commonly known as Tirumalai's Chaultri. This is in the shape of a parrallelogram measuring 330 feet and is recorded to have taken seven years to build, from 1626 to 1633, being a contribution to the temple scheme by Tirumalai Nayak. Its use is as a reception hall or temporary place of residence for the presiding deity during a certain festival season of the year".

Śrīrangam. By far the largest of these southern Indian temples is that of Śrīraṅgam near Trichonopoly which differs from the Madura temple in two particulars as it is a single temple having only one sanctuary. Its construction, instead of consisting of mainly one effort, extended over a long period of time (see details in Brown). Here in this temple main eastablishments being a hall of a thousand pillars, a flatroofed structure occupying a recangle 500 feet to 160 feet and a Horse court. The others of some note being Garuḍamaṇḍapam and two tanks called Sūrya-puṣkariṇī (pool of the sun) and Candrapuṣkarṇī (pool of the moon).

Jambukeśvara: This temple situated within a mile of the Śrīraṅgam has the finest architectnral interior. No Dravidian temple of this period, in the opinion of Brown, gives a better idea of the style at its best than the large and central court of Jambukeśvara. Within this are four immense square piers one at each corner of a square, leaving an open space or crossing in the centre for the four symbols of the creed, the Liṅgam, Nandī, Dhvaja-stambha, and Bali-pīṭham.

Rameśvaram. "A notable feature of the temple of Rameshvaram of which the chief glory consists in its pillared corridors, which not only completely surround it, but form avenues leading up to it, so that combined they are calculated to aggregate three thousand feet in length. The breadth of these fine columned passages varies from seventeen feet to twenty-one feet, and their height from floor to roof is about twenty-five feet. Richly decorated pillars of good proportions and closely set continue along the entire length, each pillar being twelve feet in height and rising from a moulded stylobate five feet high."

Chidambaram. "The Siva temple at Chidambaram consists of a large group of buildings the construction of which has extended over several hundred years, each century making its contribution until it has attained its present form. As with most of these shrines it originally rose on an ancient site, some of the inner parts being of legendary antiquity, but there are definite records of its existence before the tenth century, and some inscriptions of the eleventh. The east gopuram was erected in the thirteenth century, the Parvati temple added in the fourteenth century, the north gopuram in the sixteenth century and the hall of a thousand columns in the seventeenth century". "It is recorded however that the inner shrine is in the form of a temple car mounted on wheels and drawn by horses, by no means an unusual temple design, as may be seen at Konarak, and the Alankara mandapa at Darasuram, to mention only two examples.

One of the chief features of the Chidambaram sanctuary is its portico which is composed of fifty-six pillars of intricate pattern." Here are two important annexes to the temple's scheme, consisting of a large tank called Śivagaṅgā and a thousand pillared maṇḍapam called Rāja-sabhā. The gopuram leading to the main shrine is of special interest as it depicts one hundred and eight modes of the celebrated dances of Śiva who is Naṭarāja. Other examples may not be elaborated.

N.B. As regards the Greater Indian exuberance, it will be dealt with in a subsequent section, their affinity with the Bhaumika Vimāṇas was responsible for their co-heading.

ŚIKHAROTTAMA PRĀSĀDAS

(Nāgara Temples)

This classification of Bhaumika Vimānas and Śikharottama Prāsādas may not be taken as watertight. The predominent element is our guide—"प्राधान्येन व्यपदेशा भवन्ति". Accordingly even the socalled Bhaumika Vimānas of the South do show the evolution of Śikhara. The most characteristic temples of this class are those designated as Chalukyan especially at Aihole. It may however be remarked that in wealth and number these Śikharottamas are by far the greatest, grandest; sublimest and largest of the monuments that we possess in our architectural heritage. These Śikharottama Prāsādas are characteristic of the Hindu-temple throughout four-fifths of India. Their fascination is found in even the south of the Kistna (which is generally regarded as the southern boundry of its extent) and as far as the Tuṅgabhadrā. The two shrines at Mahākūṭa and also two shrines belonging to the Rāmaliṅgeśvara temple at Kurnool, and a number of them in Alampur, Raichur, illustrate this southern upsurge. Amongst the several types and stages of development, however, two shapes are fundamental one as represented at Aihole (Temple IX) and the other fully manifested at Khajuraho. The former may be taken as illustrative of the emergence and evolution of the Śikhara which, except for the inward curve of its sides does not differ in detail from the pyramidal type of the superstructure (i.e. the straight trunk with round edged slabs) as represented in the Sūrya temple at Sutrapada. The Āmalaka, the most distinguishing feature of the Śikharottamas may be seen at Aihole Temple No. X, which shows this genesis, where they are seen supporting the topmost course or slab of the superstructure. This may represent an early stage of the employment of the Āmalaka on the trunk of the superstructure. "The Āmalakas" Prof. Kramrisch remarks "are however, repeated in most of the curvilinear Śikhara in regular intervals re-inforcing the curved edge where they mark the Bhūmis, levels or storeys". Prof. Kramrisch's observation,

therefore that "on the earlier temples from about the 6th century, the distinction between the pyramidical and curvilinear superstructure of this type is one of degree only" is significant.

From the standpoint of the origin of temple architecture into its manifold varieties it may be contended that while the pyramidal superstructures, characteristic of southern Vimānas have their prototypes in dolmen or in the tabernacle of bended branches ; the Śikharottama Prāsādas especially in the first type (i.e. Aihole) may be said to have evolved out of the Vedic Sads from the prototypes, of which the Chādyas, the pillared halls had evolved and later on when the superstructure was conceived, the walls were made to buttrresses. "The buttresses do not form part of the flat roofed dolmen temple. They can be thought of as having originated in brick structures corresponding to the augmentation of a central area, by adding bricks in the four directions as in the piling of Vedic altars (Figs. in Part VII), not only but also in pillared buildings whose halls are made spacious by an analogous arrangement of the pillars. When the buttresses make their appearance on otherwise plain walls of the Garbhagṛha, its roof is no longer flat but carries the superstructure, the Śikhara (Deogarh, etc.)".

Now coming to the other shape of Śikhara which as I have remarked, was most perfectly manifested in Khajuraho temple is remarkable for giving us a concrete outline history of the evolution and development of Śikharottama Prāsādas. The style may be said to have originated in the land of the Bhaumika Vimānas—vide Chalukyan contributions. And the movement must have sprea l north-wards as is evident in some of the early illustrations at Buhvaneśvara where the identical ramifications with their counter-part at Khajuraho may be seen. Both Bhuvaneśvar (including Koṇārka) and Khajuraho seem to have an identical back-ground of the temple-ideal which may be a result of Tantric influence which had in a way, debased these splendid sacred sites (the Koṇārka and Khajuraho groups of temples) on account of the obscene sculpture on the buttresses depicting naked Maithuna. Though the temple of Rājarānī is regarded as later production than the Khajuraho temples but the affinity is remarkable. Which has borrowed and which has not, is very difficult to surmize. In a former part of this work I have traced the movement of the Nāgara style of temple architecture from the genesis of the Chalukyan temples spreading through Ganjam to the north of the Orissan strongholds of Kesari temples, the Buhvaneśvara, Jagannātha Puri and Koṇārka and from there it might have migrated to still north, the heart of the Bundelkhand, at Khajuraho. Bhuvaneśvara group of

temples began as early as 500 A.D. and continued for full seven centuries. Hence the influence of this upsurge spreading towards extreme north in the 9th century may not be un-understandable.

Now coming to the subject-matter in hand namely the second and the perfectest type of Śikhara as illustrated in the monuments of Khajuraho, it may be said at the very outset that these Śikharas are reminiscent of our very hoary institution of worship done in the tabernacle of leaves, bamboos or branches by those early inhabitants of this land who were predominantly foresteers and naturally conceived and evolved out a structure like the Satyanārāyaṇa-maṇḍapa which we practise even to day. This Śikhara of our temples surges towards the apex ; other smaller śikharas cling to it in a massed competition of ascent. Prof. Kramrisch has illuminating observation on this point:

"Although each of them has its edges marked by Būhmis of many strata and by Āmalakas, these horizontal elements, like the nodules of the stem of a plant, do not break its rising lines. Their curves belong to forms of vegetation, the ribs of the large leaves of Banana plants, of palm trees or bamboo rods fixed in the corners of a square drawn on the ground and bent towards a central point ; with their curves the stone built Śikharas of the Khajuraho temples arise and reiterate in their complex organisation the perennial meaning of the Tabernacle of the forest. It served and still serves the performance of worship (pūja) and vows (vrata). When these Pūjas and Vratas are completed the leaves and branches which had formed the Tabernacle, having served their purpose, are thrown away, whereas the form of these temporary and humble structures was clothed in brick and stone and raised above the Garbhagṛha, in the innumerable Śikharas known to exist from the Gupta age and which to this day compete towards the Highest Point. The Tabernacle of leaves, bamboo or branches is the prototype of the curvilinear Śikhara. The arch of vegetation, the arch of Nature surmounts and encloses the seat of God. In temple chariots with a framework of bamboo, as much as in the temples themselves; it is this 'Form of Nature' which remains one of the primeval and sempiternal forms of sacred architecture in India. It is the most sacred of all the forms of the superstructure, destined for the Prāsāda only. It is never placed as superstructure on any Maṇḍapa or any accessory building of the temple proper. There the pyramidal types are accommodated, and at times assimilated to its curves, without however attaining to their unbroken ascent".

Vāstuśāstras like the Samarāṅgaṇa-sūtradhāra, also establish the origin and evolution of the temple-śikharas from some of the most

fascinating prototypes of vegetable kingdom. The Śikhara in the terminology of Vāstuśāstra is also called Mañjarī—mūla-mañjarī and uromañjarī, which is very significant. The manifold peaks of mountain and manifold buds in a mañjarī are likened to śṛṅgas and aṇḍas in the Vāstuśāstras. Thus this two-fold denomination of this characteristic superstucture of the Nāgara-temple gives us two-fold meaning one relating to its height, sacredness and metaphysical implication in the mountain peak rising high towards the highest point, the 'bindu' the Nirākāra Puruṣa and the other pointing to the rich sculpture adorning the outer superstructure on the central shrine, the Garbhagṛha.

Formation of the Śikharas by means of a division in geometrical progression—by fourfold 'caturguṇa-sūtra cf. Agni P.; Hayaśīrṣa Panch'. etc. or by sixfold ṣaḍguṇa sūtra—cf. the S.S. and the Bṛhacchilpa, has already been referred to—vide one of the last chaps. and it may not be elaborated here. A theme however, of particular interest, here is the main varieties of the curvilinear superstructure, the Śikhara in the orthodox Nāgara school as are illustrated in the three main temple-sites of India, the Khajuraho, the Bhuvaneśvara and the Kannarese country; and it may be taken in hand. These are, as already pointed out elsewhere (ibid): 1. The cluster of Śikharas 2; The Śikhara enmeshed in Gavākṣas; and 3. The composite Śikhara.

The cluster of Śikharas: Before we undertake this type of Śikhara, a working knowledge of the temple plan and its general formation may be appreciated. The plan in the present context is cruci-form which is the result of the central major projection of each side called Bhadra, being flanked by more shallow lateral offsets, called Ratha. This is in case of the Nirandhāra Prāsādas. In the Sāndhāras (having circum-ambulatory passage) the Bhadras appear like transpets in the plan. The Talacchanda is then accentuated in the four directions, the temple stepping forth from the straight inner walls of the Garbhagṛha and the square of the Garbhagṛha is transmuted into the cross of the Prāsāda. Then follows the progression of the buttresses carrying up the Śikharater minating at the shoulder-course (skandha). Above the skandha the Āmalaka, the distinguishing symbol of Nāgara temples held aloft by the round neck, supports the finial.

Now sustaining the symbolism of Mañjarī, this type of cluster of Śikharas, as its very name indicates, consists of a central curvilinear Śikhara surrounded by a cluster of similar Śikharas. Prof. Kramrisch has very faithfully inrerpreted our technical canons in this respect : "These are formed by one or several half Śikharas or Śṛṅgas leaning

against the 'chest' (uras) of the main Śikharas and of each successive Uromañjarī. At the corners, narrow and high quarter-Śikharas fill and round off the recesses between the Uromañjarīs and the main Śikhara (mūla-Śikhara or Mañjarī), while smaller part or three-quarter Śṛṅgas are grouped in the lower courses of the Śikhara each in continuation of a buttress or offset of the perpendicular wall of the Prāsāda. The many variations of the theme of Śikhara cluster are brought by the number of Uromañjarīs of the Śikhara, the number of Rathas or offsets of the perpendicular wall and the number of horizontal rows in which are set the miniature Śikharas called Tilaka (sesamum seed) at the base of the main Śikhara, the Mūlamañjarī. These factors depend on the specific proportions of the particular type of temple and also on its height and the curvature of the superstructure. All the subsidiary Śikharas and other shapes are always subordinated to the main and dominant central Mūlamañjarī".

The most faithful representation of this type of Śikharottama Prāsādas is illustrated in the temples of Khajuraho, those in the northern Gujrat and also in Rajputana such as Jain temple in Osia; Someśvara temple in Kiradu and (as already hinted at) the Rājarānī in Bhuvaneśvara, Orissa.

The Śikhara enmeshed in Gavākṣas. As already remarked that the evolution of Northern or Nāgara Śikhara began in the South as has been seen on the temples of Kanarese country of the seventh century and prior to it. The same type prevails in Orissa culminating in the Liṅgarāja temple from the eighth century. This development may be said to take this form of Śikhara enmeshed in Gavākṣas. The Decanese temples like one at Anjaneri near Nasik, those in Rajputana, central India and as far north as the western Himalayas, also represent the type.

We have already remarked that the Śikharottoma Prāsādas as described in the Samarāṅgaṇa-sūtradhāra (LVII) are full of this evolution and development. "The temples in which the ascent is continued in one theme from the wall of the Prāsāda to the shoulder course of the Śikhara are called Latina in Vāstu Śāstra. The Latās or single offsets of the Śikhara each with its web of 'sunray windows' or Gavākṣas carry the vertical movement steadily upwards. Its urge and also its assurance rest on the curved walls of the Śikhara. Between the several offsets are recessed chases (jālāntara); their shadows outline the verticality of this Śikhara while they also add tone and enliven the many horizontal mouldings which are carried in tiers

accross the facets and the recessed chases. Between these horizontal mouldings run narrow, but deep, horizontal bands of shadows. With their dark lines they clasp the entire volume of the Śikhara. Over it is cast the trellis of point like openings of the Gavākṣas; light and shade thus become part of the texture of this Śikhara",

"This form of the curvilinear Śikhara has been particularly perfected in Orrissa. The various shapes which contributed to the Orissan temples have their models carved on the walls of the Liṅgarāja and Brahmeshwara temples specially and also on the Citragupteśvara and other of the latter temples in Orissa.

It may however, be brought home to the readers that side by side with this type of Śikhara as evolved very perfectly in Orissan temples, the other type already described namely the cluster Śikharas are also remarkably adhered. Prof. Kramrisch in her celebrated work H. T. supports this genesis: "The closed volume of an Orissan temple consists of the Prāsāda and its Maṇḍapa; the former is the Rekhā or Bara Deul and the later is the Pirha Deul; its superstructure is pyramidal, it represents type IA. In its fully evolved shape it is crowned by an Āmalaka above a Ghaṇṭā (bell-shape). The two shapes of the superstructure, the curvilinear Śikhara II. (B) and the pyramidal Śikhara I. A here conjointly, each by the side of the other, from the perfect shape of the Orissan temple, the lower Pirha Deul being subordinated to the higher Bara Deul in proportionate measurement of which the width of the Prāsāda is the module. The balance of these two contrasted superstructures, a closely knit unity of Prāsāda or Bara Deul and Maṇḍapa or Pirha Deul, is peculiar to Orissa. In the other provinces the superstructures of the Maṇḍapas prepare and defer the climax of the Śikhara of the Prāsāda (PL.I)".

Now remains the third type—the **composite Śikhara.** It, as its very name indicates, is an amalgam of both the former types integrated into one. Both the 'overspun' and 'clustered' elements make up this composition. This type cannot therefore, be said to be represented in an entirely individualistic form; because while it combines elements of both it loses the cogency of either form. The central Indian temples like Nīlakaṇṭheśvara at Udaipur, and some of the Deccan temples represent this composition in their characteristic style having a good amount of regional bias.

With this general introduction to the Śikharottamas, let us illustrate them with the monumental temples in our possession. Let us begin with Bhuvaneśvara as some of the temples in this group are

earlier enough to justify the chronological sequence. Thus leaving the South we now wander in the North. In treating the Northern or Indo-Aryan or more correctly Nāgara style in opposition to the Southern or Dravidian style, we cannot adhere here to the dynastic manifestations as we have been doing in case of the Dravidian Temples. Here we have to treat the Nāgara temples in their geographical distribution as this Indo-Aryan development was not confined to a relatively restricted area such as the southern extremity of peninsula, but was characteristic of the fourfifths of India. Thus this geographical distribution pre-supposes the regional developments which are some six in number.

1. Kalinga or Orissa
2. Khajuraho
3. Rajputana
4. Gujarat and Kathiawar
5. Deccan; and
6. Gwalior and Brindāban.

ORISSA

1. **Bhuvaneśvara** :—Among the orissan group there are three principal sites—Bhuvaneśwara, Puri aud Koṇārka. Bhuvaneśvara the capital seat of the Kesaris provides the most logical beginning for a study of the Nāgara style. There are over thirty (though the legends would have them thousands) examples concentrated in the town of Bhuvaneśvara. It may be remarked here that this central development in Bhuvaneśvara group of temples in Orissa is not a sudden development. It had its beginning as already pointed out, from its southern extremity (cf. Ganjam within the Madras Presidency) to the northern offshoot in the state of Mayurabhanja having its ramifications as early as 6th century in the territory of the Chalukyan and Percy Brown's conjecture in this respect supports my contention which I have developed elsewhere (Styles of Temple Architecture Ch. IV pt. V). The following observations of Bro.vn are therefore very pertinent: "That there can have been any direct connection between the ear y Chalukyan structures on the south-west, and the temples of Ganjam on the east is somewhat improbable, but the fact remains that certain architectural affinities are observable which suggest a linking up of the temple design in these two divergent places. If such a correlation is admitted, it may be traced to the political cantact which no doubt existed between the Ganga king of western India on the one hand, and the Ganga dynasty of Kalinganara, now the modern Mukhalingam, on the other. It was from their capital in Ganjam that the country of Kalinga, at present called Orissa, was administered by the Eastern Gangas from about A.D. 600. By some such means the cultural activities of the Early Chalukyans may have

been conveyed to this region on the east where, beginning from the eighth century certain architectural forms appear, which bear a resemblance to those produced slightlly earlier at Aihole and Pattadakal. (Chap. II and XVI)".

Orissan temples comprising all the three main groups are characterised by independent evolution. Percy Brown says : "Not only are the plans and general treatment of these religious structures of a special character, but the building art has a separate and distinct nomenclature of its own. The generic name for a temple is deul, but as the building in the first instance consisted very often of a sanctuary only, the same word was employed for this tower-like structure also. In front of the deul is a square building of assembly hall corresponding to the maṇḍapa in other parts, but here known as the Jagmohan. These two edifices combined constitute the essentials of the Orissan temple type. As the style progressed and also as the temple ritual was developed, other buildings were found necessary, and were added to the front of the assembly hall, thus presenting in the larger examples a series of structures all in one axial alignment. The two buildings usually supplemented were first the Naṭ-Mandir or Dancing Hall, and secondly in front of this the Bhog Mandir or Hall of Offerings. Standing on a basement or a plinth (pista), these halls were invariably of one storey only, and the elevation of each consisted of two parts, a cubical portion (bada) below, and a pyramidal roof (pida) above. In the same way the lower and upright portion of the deul or tower is called the bada, but above that it is resolved into three parts, comprising the tall middle portion or chhapra, the flat fluted disc at the summit known as the amla, and its finial or kalasa."

Further he observes, "compared with the other regional developments in the Indo-Aryan style, the Orissan temples as a whole are of the astylar order, pillars being notable by their absence. In some of the earlier examples the pillar finds a place, suggested no doubt by other modes, but as a rule it was not favoured. In a few of the larger halls however some such support became a structural necessity to sustain the heavy weight of the pyramidal roof, and accordingly a gronp of four solid piers, one at each corner of a four-square system of roof beams was introduced. One of the most remarkable characteristics of the Orissan temple is the plain and featureless treatment of the interior contrasted with the profusely ornament walls of the exterior, the surfaces of which are charged with a superfluity of plastic patterns and forms. The difference between the rich carving on the outside; and the simple unadorned

places of the interior can only be accounted for by the existence of some esoteric tradition which the builders either instinctively followed, or were compelled strictly to observe".

Though from the standpoint of the region there are three separate sites in Orissa—Bhuvaneśvara, Puri and Koṇārka, but for a study of a chronological development the more important examples of Orissan temples may be resolved into the following three groups according to their date and style (vide Percy Brown's Indian Architecture p. 124).

Early Period cir. A. D. 750 to 900 (Bhuvaneśvara)

Paraśurāmeśvara
Vaital Deul
Uttareśvara
Īśvareśvara
Śatrugaṇeśvara
Bharateśvara
Lakṣmaṇeśvara.

Middle Period cir. A. D. 900 to 1100 (Bhuvaneśvara and Puri i. e. Jagannath.)

Mukteśvara
Lingarāja
Brahmeśvara
Rameśvara
Jagannātha.

Later Period cir. 1100 to 1250 Bhuvaneśvara & Koṇārka

Ananta Vāsudeva
Siddheśvara
Kedāreśvara
Jameśvara
Megheśvara
Sarai Deul
Someśvara
Rājarānī.
Temple of the Sun at Koṇārka,

Two of the early temples at Bhuvaneśvara, the temple of Paraśurāmeśvara and Vaital Deul are of surpassing interest in the evolution and development of Śikharottama Prāsādas at Bhuvaneśvara. We have already remarked some affinity between the Chalukyan and the Orissan style, rather the latter an independent development on the genesis of the former. Percy Brown's following observations support my thesis :

"An interesting comparison may be instituted between this temple, and the somewhat earlier temples of the Chalukyans at Aihole. It will be seen that the tower of the Paraśurāmeśvara example, although inclined to be heavy and crude, is an improvement on the Indo-Aryan type of sikhara subsequently added to the Aihole buildings. Moreover the incipient form of clerestory introduced into thehe Orissan temple is also an advance on double roof of the Durga

and Huchchimaligudi temples of the Chalukyan group, from which however it may have been derived. It is the peculiar treatment of such features, which suggests that some communication of impressions may have been maintained between these two centres, thus enabling the Orissan mason to benefit by the experiences of his fellow craftsmen in the Deccan. On the other hand, there are certain portions of the architectural ornamentation in the Parasrameswar temple, such as pilasters with vase and foliage capitals, a motif usually associated with the Gupta mode, indicating, as already mentioned, that there were also influences from the more northerly source. Taking all these factors into consideration it may be inferred that the approximate date of the Paraśurāmeśvara temple is towards the end of the eight century, a date which also marks the introduction of the Indo-Aryan style of architecture into the region."

The Vaital Deul is remarkable for its different conception allied more to the southern style as exemplified by the Dravidian Gopuram and originally based on Buddhist chaitya halls The second group comprising the middle period (900-1100) represents the movement at its early maturity or prime. The earliest of the temples, the Mukteśvara may be regarded as a miniature gem of architecture of Orissan style as it is not only a highly finished structure, ornamented with fascinating carved patterns, but in addition is approached by an arched gateway or toraṇa of the most elegant design and execution. The architectural element speak of considerable advancement on the early phase as we see in the Paraśurāmeśvara. We have already pointed out a characteristic element of these temples, absence of interior decoration but in the Mukteśvara it is an exception as it is one of the few temples of the Orissan group which has sculptured decoration in its interior.

The most representative examples of this middle period are two temples of monumental proportions, the Liṅgarāja (1000 A. D.) at Bhuvaneśvara and the Jagannatha (1100 A. D.) at Puri, the former being not only the finest living example of Orissan group, but one ranks as one of the foremost architectural productions of the country. The planning of the temple recalls Buddhist pattern in congregating their votive chaityas around the large central stūpa. The Liṅgarāja or Great Temple of Bhuvaneśvara occupies the centre of a large quadrangular enclosure measuring 520 ft. by 465 ft. within which many subsidiary chapels and shrines have been grouped around the main temple, contributions by ardent devotees, acts of pity and merit, the Pūtra performance.

The Liṅgarāja consists of four structures which comprise the fully developed Orissan temple type namely the Deul, or Śri Mandira (corresponding to the Vimāna), the Pillared Hall or Jagamohana, (the Mandapama); the Dancing Hall or Naṭa Mandira, and the Bhoga Mandira, the Hall of Offerings.

2. **Puri** :—The other notable example of the middle period is the famous temple of Lord Jagannātha at Puri, an appreciably larger building than the Liṅgarāja, though inferior in architectural workmanship. Its situation however on the shore of the sea, is remarkable and gives it an eminence, characteristic of the legends that are household of Hindu devotees. Naturally it presents a singularly commanding appearance, its soaring deul providing an imposing landmark accross the low-lying country for many miles around. This site has many associations. There are records that it was originally built as pillar of victory by Ghora Ganga, the conqueror of Kaliṅga in 1030 A. D. There is yet another tradition which associates this site with Buddhism. It is said that there was some still more ancient monument, not improbably the shrine of Buddha's tooth at Dantapura, before that precious relic was transported to Ceylone. Though built on the same principle as the Great Temple at Bhuvaneśvara and consisting of the same four edifices in one alignment, but for its impressive proportions, the architectural effect of this temple is disappointing as in its treatment it is merely an arid replica of its predecessor at Bhuvaneśvara. There are however some features in the Jagannātha temple at Puri which have considerable significance and implying affinities of a widely separate kind (See Brown page 128, 3rd para).

A very remarkable feature of this temple is in regard to the enshrined deity, Jagannātha who is accompanied by his brother Balarāma and sister Subhadrā. The enshrinement of the principal deity with his consort in the principal shrine has been a time honoured tradition ; but in this particular temple it is altogether new introduction which might have been influenced by the Buddhist tradition of Trika.

Now as regards the third period or later style of Orissan architecture which flourished about 1200 A. D., it is represented by a number of temples, none of which is large but are remarkable for their rich and finished appearance betokening the ornamental development.

The most graceful and elegant example of this period is however the Rājarānī temple whose affinity with the Śikharottamas of Kajuraho is another landmark in our position that the Nāgara style of temple architecture as is illustrated in the temples of Bhuvaneśvara and Khajuraho have a common fountain and are a manifestation of one move-

ment. This temple displays a refinement in its curves and contours denoting not only an advance in the art of composition, but an appreciation on the part of the craftsman of a more subtle feeling for form. Much of the improved effect has been obtained in the composition of the Śikhara which is remarkable for its beauty and elegance. Its affinity with Khajuraho art is simply bewildering and gives us a guess that whole movement was a national exuberance of the day. Rājarānī temple is not only a type by itself at Bhuvaneśvara, so for as its artistic execution is concerned there is yet another factor in its design which is a further indication that this example is a departure from all others of the group. It is the diognal treatment of the temple-plan.

3. **Koṇārka** :—The temple of the Sun at Koṇārka is the grandest achievement of this Eastern School of architecture, standing entirely by itself, some twenty miles in a north-easterly direction along the sea-coast from Puri a great mass of masonary and rising like a pyramidal mound above the sand-dunes and forming from the sea a prominent landmark known as Black Pagoda, it had become a deserted ruin resurrected in recent times. It was built in the reign of king Narasiṁha-deva (1233-64). Even its ruined structure is an amazing performance. Percy Brown remarks : "The conception of this temple was that of a genius, but its colossal grandeur out-stripped the means of execution, for its materialization was beyond the capacity of its builders, its scale was too great for their powers, and in the constructional part they failed. It was, however, a magnificent failure, for without unduly straining the imagination, it is possible to see even in its ruin, that it was one of the finest architectural efforts the Indian master-mason ever made".

In the history of devotional upsurge in India, Sūrya, the Sun God had also occupied a prominent position. A good many sun-temples were raised, the largest and most remarkable Saura-Prāsādas being Koṇārka in Orissa, Mārtaṇḍa in Kāśmīra and Modhera in Gujarata. In the planning and execution of this stupendous undertaking the whole mythology and artistic canons coupled with the genius of the land and superb artscraftsmanship of the region have played their equal part. Firstly it represents the crystallised and accumulated experience of several hundred years of this type of temple-buildings, hence it shows the most reasoned and systematic co-ordination of its parts into an architectural unity.

It therefore illustrates in every respect the fulfilment and finality of the style. Secondly in its conception, it is supremely imaginative in character. Thirdly it is based on the traditional representation of

Sun God as conceived by the Ṛṣis of the Ṛgveda (1.115. 4). Visualizing the deity as time's winged chariot urging on his team of seven horses, with which he blazes his way through the heavens. Percy Brown therefore remarks : 'This spirited allegory moved the designers to translate it into temple form to realize it as a great spectacle in stone, the building to be fashioned like a ratha or wheeled car being whirled along by the seven horses of the sun.' This is only a bare outline of its architectural conception and the execution thereof. Its sculpture however, is superbly rich and is a subject of an independent investigation, as much of its plastic decorations and mural sculptures are grossly obscene. Though few buildings can boast of such an unrestrained abundance of plastic decoration as this vast structure, depicting conventional foliage, mythical animals, fabulous beings, half human with half serpent coils, figures satanic and figures divine of any conceivable motif and subject known to the Indian mind and in a technique, which ranges from patterns cut with minute precison of a cameo to powerfully modelled groups of colossal size, but nowhere sexual perversion is so blantly exploited as on the walls of the temple of the sun at Koṇārka.

KHAJURAHO

Khajuraho represents the most refined and finished manifestation of the Northern or Indo-Aryan or the Nāgara style of Hindu Architecture. Its stability and elegance are equally remarkable. It is really a pity that the temple could have been deserted for long and neglected for any temple-ritual for several centuries. Situated in the region of Bundelkhand (State of Chattarpur) a hundred miles south-east of the town of Jhansi, these temples are over thirty in number. Khajuraho temples seem to be a very matured performance, as unlike Orissan temples they do not illustrate a development over a long period of time. Epigraphical evidences show that they were all erected within the relatively narrow interval of a hundred years, from about A. D. 950 to 1050. Brown therefore very aptly observes :

"There is however another outstanding feature on this central zone of the temple exterior, a decorative motif and one which fills in the wall spaces between the openings mentioned above. This takes the form of two and sometimes three, parallel friezes, conjoined and following the alternate projections and recesses of the walls and carried round the entire building. Peopled with groups of statuary moulded in high relief, and in dimensions rather less than half life size, these friezes present a moving pageant and never-ending procession of lifelike forms, shapely in appearance, exquisite in

workmanship and of inexhaustible interest. One temple alone, that of the Kandariya Mahadeo, the figures thus depicted are six hundred and fifty in number, and each building accommodates a similar community in proportion to its size. (Plate LXXIX). Some of the figures are apparently ideal human beings while others are divine personages, but all are in elegant attitudes and some are posed with a Hellenic grace recalling the rhythmic forms on a classic vase. Unlike the sombre saints who look down from Gothic niches, those on the walls of the Khajuraho temples are of a warm and gladsome nature, living in a happy golden age, when time was one long sequence of pleasureable experiences. With such an animated throng ever present on these structures it is not remarkable that the architecture pulsates with a human vitality not ordinarily found in the building art."

Khajuraho represents a land mark in religious history of Northern India. As at Ellora so at this place, Śaivism, Vaiṣṇavism and Jainism all have their monuments. These temples are the outcome of the benevolent munificence of the Chandela Rajas.

Temple Architecture of Khajuraho has a definitely individual character. Its only affinity if there is any, rests with that graceful construction, the Rājarānī temple at Bhuvaneśvara. The Dravidian influence on the Orissan temples is fairly perceptible not only in the planning of the temple enclosure but also in raising the Vimāna. The Prākāra walls and Dhvajastambhas are all full of this influence. The Khajuraho temples on the other hand may be classed as Jagatī-Prāsādas in the terminology of the Samarāṅgaṇa Sūtra-dhāra as instead of being contained within the customary enclosure wall each stands on a high and solid masonary terrace. On the broad platform thus produced each temple has been erected not as a number of conjoined buildings, as is the case with Dravidian and Orissan temples, but as a unified structure, all its parts so incorporated as to form a compact architectural synthesis. Secondly none of them is of any great size, the largest is only slightly over a hundred feet in length, so that they are by no means imposing edifices, but they rely for their appearanace in their elegant proportions, graceful contours and rich surface treatment. Thirdly these temples are notable for their simpler designs, the whole edifice is divided into three main compartments namely the cell or garbhagṛha, an assembly hall or maṇḍapa and an entrance portico or ardha-maṇḍapa. Supplementing these, are the antarāla or vestibule to the cella and in the more developed examples, the transcepts or mahā-

maṇḍapas, together with a processional passage around the cella. Fourthly unlike the Orissan type which is pyramidal, the Khajuraho roofs are domical in contour and therefore rightly represent the best and the most faithful illustrations of the Śikharottama Prāsādas of our Vāstuśāstras. Further the touchstone of the Indo-Aryan or Northern or more properly the Nāgara type of temple is the design of the spire and the examples of this dominating feature at Khajuraho are the most refined and elegant of their kind. The Vāstuśāstra nomenclature of Śikhara as Mañjarī is perfectly portrayed here. "The graceful shape of these Sikharas has been effected in two ways, on the one hand by the subtle lineaments of the main curves, and on the other by the rhythmic disposal of the subsidiary members attached to them. It is only necessary to compare the Khajuraho form of sikhara with the Orissan type to realize the beauty of the former with its flowing profile. In the first place the contours at Khajuraho are more taut and tenuous, the tampo of the lines is accelerated as they mount up in a more decided incline. But the principal refinement is obtained by the design and distribution of the miniature turrets or urusringas, which it was the practice to superimpose on the sides to break up the mass." Fifthly contrasting with the excessively plain treatment of the Orissan interiors, the halls, of the Khajuraho temples are richly decorated with sculpture. As regards the exterior decorations they have no parallel. There at Khajuraho the Mythology has mingled with Metaphysics and a good many symbolisms, if worked out, must illustrate the back ground throwing side lights on the real significance of Prāsāda-mūrti according to our Śāstras where the Prāsāda, the Hindu Temple has been viewed as Puruṣa-mūrti.

With this general introduction to the general characteristics of Khajuraho temples let us dwell a little more on their grouping and individual craftmanship: "The main group of temples at Khajuraho, consisting of at least a dozen buildings, is that to the north-west of the site, where they are arranged in two lines, with both Vaishnavite and Sivaite shrines standing side by side. In some instances the dedication is a matter of doubt, while the designation of a few may have been subsequently changed. Each of these two lines of structure consists of one large temple, with others slightly smaller alongside, and, for the purposes of the study, each has been given a serial number. The largest of the entire series is the Śiva temple of Kandariya Mahadeo (No. 3) the first of the most westerly line, and its dimensions are 109 feet in length, 60 feet in width externally, with a height of 116½ feet above the ground or 88 feet above its own floor. Its plan

is that of a double-armed cross, as not only is it provided with transcepts to the maṇḍapa, but it has another pair with windows to give light to the processional passage, while there is also a similar aperture for illuminating this corridor in the rear. The compartments of the interior are six in number consisting of the portico, main hall, transepts, vestibule, sanctum, and ambulatory." Other temples may be passed over. There are two other temples at Khajaraho planned on the same principle as the Kandariya, with double transcepts, but they are both one sixth less in size. These are the Śiva temple of Vishvanath (No. 7) and the Viṣṇu temple of Chaturbhuj. "The Jain temples grouped together on the south-east of the site are some six in number, in varying states of preservation, and as a whole their architectural character differs but little from the Brahmanical examples."

RAJASTHANA AND CENTRAL INDIA

This is the most unfortutate region which suffers most from the invasions of the Muhammadans, in regard to its majority of temple-architecture. This part was the direct successor of the building art of the Gupta age which is remarkable for its exuberance of new motifs in Indian art. The stray ruins of Rajasthana and central Indian architecture and sculpture betoken a latter flowering of a singularly rich and lovely nature of Gupta art. Demolitions of temples by the Muhammadans completely effaced most stupendous undertakings and naturally therefore examples are comparatively rare and fragmentary. Nevertheless a picture can be reconstructed with the help of the temple parts especially the pillars being used in two famous Islamic monuments, the Qutub Mosque at Delhi and the Arhaidin-ka-Jhompara at Ajmer.

This artistic upsurge of the period is synchronous with the literary upsurge of the early medieval period in which poets like Bāṇabhatta, and Bhavabhūti were creating the masterpieces. The post-Gupta epoch was as classical and scholarly as the Gupta age itself. That this scholarly movement influenced all forms of expression, is shown by the architecture of this period, and it is clear that it was a time when men's minds were working in accordance with high aesthetic ideals. Percy Brown masterly depics this age—vide Indian Architecture p. 138.

Now without going into details let us have a bird's eye view on the surviving specimens of this region, though most of them are unfortunately fragmentary owing to subsequent vicissitudes.

1. **Eran in the Saugor district of Central India.** Here are architectural remains extending over a period of some six centuries (500 to 1100 A. D.), a series of shrines dedicated to Varāha, Narasiṃha and Viṣṇu.

2. **Pathari.** (10 miles away from Eran) where a 7th century monolithic column and 9th century Kothesvara temples are found.

3. **Gyraspur.** (Further south) It is famous for Athakambha or Aṣṭastambha (eight pillars) and char-kambha or catuḥstambha (four pillars). These are column halls, fore-runners of Sabhā-maṇḍapas of Gujarat. There are two other structures called Bagramatha and Mala De temple.

4. **Udayapur.** It is famous for Udayeśvara (an eleventh century temple) showing by its style an affinity to the Khajuraho temples.

5. **Osia.** It is a village thirty two miles north-west of Jodhpur. It is a renowned temple site where some sixteen Brahmanical and Jain temples are found among which the most complete example is a Jain temple dedicated to Mahavīra.

A word on the art of these creations may also be added here for which Percy Brown seems to be at the best: "The significance of the pillar and its capital in the temples at Osia has been already emphasised, but in some of the examples that distinctive motif the "vase and foliage" attained its supreme form. Although not universal, this type of capital may be regarded as the "order" of the Indo-Aryan style, and in the hands of some of the sculptors it has been made into a singularly graceful feature. One of the most elaborate examples of the vase-and-foliage convention may be seen in the porch pillars of the Mahavera temple of the eighth century. Not only is this element introduced into the capital of the pillar, but, with a slight modification, it also serves as the base. This enrichment however did not satisfy the Indian artist, it was merely one incident in his design, for over and above this he piled on other ornamental devices almost smothering the pillar with the wealth of his inventiveness. There is a feeling that he was endeavouring to express to outpourings of nature in her most bounteous mood, that tumultuous fertility of tropical growth, but on occasion his exuberance becomes strained so that the palate cloys and the eye tires from such a display of sheer sensuousness."

"No account of the temples of the Osia group would be complete without a reference to the doorways, particularly those which form

the entrances to the shrine chamber. In most of the temple architecture, these are the features on which the decorator concentrated all his knowledge and skill, thus corresponding in their wealth of story to the doorways of a Gothic cathedral in the West. The fact that the shrine entrance led immediately into the divine presence seems to have given wings to the artist's imagination, so that here we find portrayed, by symbol and image, whole volumes of folk lore and mythology for those who can see but cannot read. On the lintel are represented the nine planets or *navagraha*, while below are ornamental niches each enshrining some well-known incident. Simulating a key-stone is the dedicatory block, often depicting a figure or emblem associated with the divinity within the cells, while in panels down the jambs are figure-subjects of lively interest. Decorative mouldings outline the doorway, among which is a motif of double spirals continuing right round the opening delineating the interwined coils of the snake Sesha, the king of the Nagas or serpent race, signifying an endless destiny or eternity. The river goddesses of the Ganges and the Jumna figure at the base of the jamb, to which position they were relegated after the Gupta era; one of the conventions of that period was to include these deities at the upper angle of the doorway, the sixth century marking the date of this change"

The post-Gupta development, as expressed in the west and central region, was undeniably a rich aftermath of the intellectual regime of the imperial Guptas, the earlier manifestion signifying that first creative impulse which heralds the birth of a new era, the later, under the steadying influence of time, producing the exquisite second flowering, as exemplified by the remains at Osia, Eran and elsewhere. But in reality these groups of buildings only represent one aspect of a much wider cultural movement which extended into most parts of the country. For there is ample evidence that during the latter half of the first millennium the arts generally were approaching a very high level, and in several instances had actually attained their golden prime. The great school of rock architecture which was nearing its glorious end, and the building art in its structural form which was beginning its grand achievements, indicate that the spirit of progressiveness was a very living force at this time".

GUJRAT AND THE WEST

The temple-architecture of this region is regarded to be one of the richest and most prolific developments of the Indo-Aryan style of architecture. Despite the devastations of the iconoclast Muhammadans—vide Mahmud Ghazani's expedition to Somanātha in Kathiawara in 1025-26 A.D. and the conquest of this

part of the country by the Sultans of Delhi in 1298—most of the temples are effaced and are in ruins. Enough, however has survived due to the stable rule of the Solanki dynasty, a Śaivite line whose power extended over a large area centring round Gujrat and including Kathiawar, Kach (Cutch) and much of what is now Rajputana, with the capital at Anahila vada-Pattana, corresponding to the comparatively modern town of Patan, north west of Ahmedabad, whose reign was not only comparatively peaceful, but also was marked by material prosperity. Its geographical position was very favourable as Gujarat was to India, what Venice was to Europe, for the focus of commerce of both east and the west. Naturally this state of general affluence was instrumental in giving rise to a form of religious architecture which is noted for a new emergence of architectural pattern—the ornamental style, what our Vāstuśāstra would have it, the Lāṭa style within the Nāgara style of Indian architecture. Apart from the patronage of the ruling chief, the bountiful contribution and dedication from people at large were also there. Gujarata is credited to have developed a remarkable art which was of a high watermark and this gives us a clue that the Gujarati craftmen had inherited an artistic capacity, rich and deep and their productions are ripe examples of this innate architectural genius.

When such was the state of building ferver, the architect-masons also developed into flourishing guilds, and they had their own traditions and tradional learning and craft. The śilpins or śilavats or salate practised śilpas in a manner characteristic not only of the age but also of the artistic heritage of India. The planning of the temple and its design were also adopted with some modifications to produce better results. In these temples only two notable formations were more marked, the garbhagṛha and the maṇḍapa or more correctly the sabhāmaṇḍapa, the latter being the most remarkable charactaristic of lāṭa architecture. Lāṭa, as we have seen, is the ancient name of Gujarata. As regards the elevational aspect of the Solanki type of temple the reader is referred to see Brown p. 43-44.

This is the general character, of Lāṭa architecture as represented in Solanki monuments. There are some other notable characteristics. Firstly in this western development the architectural style is definitely peristylar, as groups of elegantly carved pillars form an essential part of its content. Secondly we have the Śāstric injunctions for plastic prohibitions in the interior of Hindu temples. Accordingly the different regional styles depict this restraint in their characteristic manner. Among the Orissan temples many have almost entirely

plain interior. In Khajuraho, more freedom is discernible as a considerable amount of carving is found in the interiors of the temples of this group. The irresistible chisel of the Indian carver however could not always be repressed by precept of the Śāstras and his art therefore did intrude into the forbidden areas also.

With this gen'ral indroduction to the temple architecture of Gujarat, let us describe in brief the temples themselves. The following is the chronological list of more important temples:

Temples at Sunak, Kanoda, Delmal and Kasara all in Gujrat (10th Century).

The Navalakba temples at Ghumli and Sejakpur in Kathiawar; Sūrya temple at Mo lhera in Gujrat; Vimala temple at Mount Abu Rajputana, and the group at Karadu in Mewar (11th Century).

Rudra Mal (fragmentary) at Sidhapur, Gujarat, Somanātha (several times restored) Kathiawar (12th Century).

Tejpala at Mount Abu Rajputana (13th Century).

There is no place to describe all these temples in their details. But some examples must be purviewed in order to get the glorious manifestation of Lāṭa architecture. Among the them, Sūrya temple at Modhera, Vimal temple at Mt. Abu and Rudra Mal and Somanātha in Kathiawar cannot be left without some words on them.

Sūrya temple at Modhera : It is a ruined structure, nevertheless "in viewing the Modhera temple as a whole, the aesthetic sense at once responds to the elegance of its proportions, the entire composition being lit with the living flame of inspiration. But apart from its material beauty, its designer has succeeded in communicating to it an atmosphere of spiritual grace. The temple faces the east so that the rising sun at the equinoxes filters in a golden cadence through its openings, from doorway to corridor, past columned vestibules finally to fall on the image in its innermost chamber. In its passage the ray of the heavenly body to which the shrine is consecrated, quiver and shimmer on pillar and archway, giving life and movement to their graven forms, the whole structure appearing radiant and clothed in glory. To see this noble monument with its clustered columns not only rising like an exhalation, but mirrored in the still waters below, is to feel that its creator was more than a great artist, but a weaver of dreams".

Temple of Vimala: It is a contemporary structure of Modhera and although in much the same style, it differs in several material particulars. It is constructed entirely of white marble, and designed to conform to the usage of the Jain religion being one of the oldest and most complete examples belonging to that creed. Its interior including the pillars, is elaborated with sculptured forms. Vidyādevīs form a prominent sculpture.

Rudra Mal: It is situated at Sidhapur in its ruinous condition and was consecrated by Jayasimha Siddharāja, the hero king of Gujarat (1094-1142). It was one of the largest and most sumptuously decorated religious monuments of India. Of its wonderous beauty, Percy Brown records the Gujarati Ballad-Singer—see Brown p 148.

Somanatha: is a monument of legends and fascinating survival. It is a history and story woven into our very texture of life and death.

THE TEMPLES OF DECCAN (1100-1300 A. D.)

This Decnani tract comprises an extensive area of the middle-west of the peninsula, being contained between the river Tapti on the north and the upper branch of the Kitsna on the south. It is this very part which is noted for notable architectural tradition, the finest examples of rock-cut mode such as Ajanta and Ellora. This tract from the standpoint of temple-evolution is sandwitched between two famous exuberances namely the Lāṭa towards the north and Chalukyan on the south. Despite the two divergent influences on its proximity on the north and the south, these temples display certain notable features of an independent and original order.

It has already been remarked in the previous introduction that three types of Śikharas were evolved—the cluster Śikhara, the Śikhara enmeshed in Gavākṣa and the composite Śikhara. These Deccanese temples illustrate this last variety. Percy Brown also supports this:—

"One of the most prominent of the self-originated characteristics in the Deccani type of temple is observable in the design of the sikhara, which is decidedly different from that of any other region. Instead of the turrets or *urusringas* being grouped around the lower part of this structure, as in most examples, the Deccan sikhara has a pronounced vertical band carried up each of its angles, taking the form of a "spine" or quoin. This feature extends from the lower cornice right up to the finial, and displays functional qualities of a high order, as it follows the main contours of the spire thus holding the entire shape within its firm outline. (Plates LXXVI and XCV). Then the spaces between these quoins are filled in with rows of

small reproductions of the sikhara itself, each supported on a pedestal like an altar, the contrast of this strongly marked repeating pattern with the more delicate diaper on the quoins producing an effect of some emphasis. The same principle was employed in the formation of the other portion of the temple scheme, as the pyramidal roof of mandapa is composed of diminishing rows of miniature multiples of itself, so that this singularly artistic system is the keynote of the composition as a whole." Deccanese temples are of not large size Even the largest of these that at Sinnar one of the most spacious, is of a very moderate size being barely 80 feet in entire length. It was necessiated by a particular mode of their planning and construction. The proportions of the building were determined by a unit, this unit being the height of the monolith shaft of the pillar in interior which was dependent in its turn on the available stone from the quarry. The number of these temples is not very large hardly fifty in all, of which the ten are of some significance and they are enumerated in their chronological order—vide Percy Brown.

Ambarnatha. The finest and the earliest of the group is the temple of Ambarnatha in the Thana District of the Bombay Presidency: "In a delightful situation by the side of a long deep pool, this temple, when complete, was a model of rich perfection, typical of the style when the architect had been given a free hand and unlimited time. For there are few buildings of the Indo-Aryan order, which display more refined architectural perception combined at the same time intricate decoration lavishly but tastefully applied. To the western eye disciplined to the principle of ornamental passages being balanced by plain spaces, such a tumult of sculptured forms distributed over every surface of the structure, the piling of ornament upon ornament, apparently defying all the accepted conventions of the building art, is bewildering. But a study of this temple reveals the fact that, although the plastic embellishment may lack restraint, and implies occasional formlessness, the architectural and functional treatment of the structure as a whole, is reasoned and logical".

Another site containing buildings in this style in Khandesh (within the Deccan) is that of Balsene where there is a group of nine temples. Of these a triple-shrined structure is of much the same design as that of Ambarnatha. Although of lesser size and moderate proportions it is a building of considerable beauty and among its many ornate features, the shrine entrance is most striking a production. At the base of this door way are the usual groups of divinities and rising above these on each side is the decorative "nook-shaft" which characterizes the shrines of this class.

Now leaving a detailed treatment of other temples, let us dwell a little on Hemadpanti style in the words of Brown himself : "During the latter half of the thirteenth century, and also extending into the early fourteenth century a considerable number of temples were built, which are referred to all over the Deccan as in the Hemadpanti style, their production being ascribed to a great patron of temple architecture of the name of Hemadpant. This semi-legendary personage has been identified as most probably a famous prime minister of Ramchandradeva, the last of the Devagiri rajas, who ascended the throne in A. D. 1272. A high and influential official, Hemadpant had a passion for temple building, and appears to have been responsible for the erection of many religious edifices within this region. The temples designated as Hemadpanti are distinguished by their heavy proportions and bald and uninteresting architectural treatment, and, what is particularly noticeable, the scarcity of figure sculpture on their exteriors. Common though the temples of this type are in the Deccan, some of the most representative examples being in the Berars, they are uninspiring conceptions, apparently illustrating the building art of these parts when the real spirit had gone out of it, under the ominous shadow of the impending Islamic domination".

THE TEMPLES AT GWALIOR & BRINDABANA

Gwalior temples. There are some eleven structures of a religious character within the perimeter of this rock-bound fortress, five of which take the form of temples. Three of them are important and the largest of the three, known as the greater Sasbahu or Sahasrabāhu was finished in 1093 A. D. The Teli-ka-mandira may be deemed as an earlier construction.

Teli-ka-mandira. It is a rare type of Brahmanical sanctury having a relic of the distant Buddhist heritage for śikhara is remarkably noted for its affinity with the Vaital Deul at Bhuvaneśvara.

Sas-bahu. There are two temples both designated Sas-bahu, literally meaning the "mother-in-law and daugther-in-law". "Both are in much the same architectural mode, the smaller of the two, although an elegant little building, in comparison with the larger example, of which it is a reduced and simplified copy, is relatively unimportant. For, apart from consideration of style and structure the large Sas-Bahu temple is a most informative production, its composition and treatment generally adding not a little to our knowledge of architectural development at this period. (Plate CI). Dedicated to Vishu in the last years of the eleventh century, although still a grand pile,

this temple is but a portion of the original conception, as only the main hall or maṇḍapa remains, the vimāna with its śikhara which was probably 150 feet in height having disappeared. On plan the building is in the form of a cross, the entire length being 100 feet, the width across the transepts 63 ft. while the height of the great hall was originally about 80 ft."

"As only the great hall is now the part in existence, it is from this structure alone that the architectural style of the Sas-Bahu can be judged, but it is quite sufficient for purpose. Externally this maha-mandapa or assembly hall is in three stories, which take the form of open galleries or loggias surrounding the building on all sides Each story is defined by a massive architrave, with the spaces between occupied by pillars and piers, the effect of the facades being that of large open arcades".

Brindavana. This legendry place very fondly associated with Yogeśvara Kṛṣṇa, famous for his līlās and krīḍas, is an important temple site. Here is a group of five temples, all built of red sand-stone and in the style of architecture different from any others of their kind, these temples are:

1. Govind Devi. 2. Radha Ballabha. 3. Gopinath. 4. Yugala Kisore; and 5. Madan Mohan.

These temples show a local development. They are relatively late, belonging to the reign of Akbar, and are a result of the Great Mughal's notable toleration, they were built to the order of certain Hindu princes who had allied themselves to the Moghul power. The reason of the selection of the site is due to a widespread revival of the Kṛṣṇa Cult, brought about by the preachings of the famous Vaiṣṇava reformer Caitanya.

The largest and the most important of these temples, Govinda Devi, is on the model of Sas-bahu as its elevation being formed of several storeys containing open arcades. Percy Brown has a very illuminating estimation of this temple: "But the manner in which this traditional arrangement has been treated, shows that during the intervening period the builders had acquired an entirely new orientation in the field of temple architecture. The Govind Devi temple signifies as comprehensively as any building could do, the change that had taken place in the constitution of this part of the country, owing to the conditions brought about by the Islamic domination, a change, in the case of the building

art, from the aesthetically natural to the ordered conventional, from architecture produced largely by rule of thumb, to that resulting from the application of certain well-defined structural principles. One noticeable fact in this temple is the almost entire absence of figure-carving, a circumstance not improbably due to the Islamic usage prohibiting any display of imagery, and communicated to the guildes of artizans by the Emperior Akbar, although that monarch himself was no bigot in this respect. The consequence of these various influences is that while Govind Devi temple is an architectural composition of no little formal beauty, consisting as it does of a combination of balconies and loggias, of bracketed archways and moulded buttresses, wide eaves and ornamental parapets, all carefully disposed so as to be in perfect accord with one another, there is at the same time an almost complete absence of that quality of humanism, together with a deficiency in that supreme spiritual content which one has learned to expect incorporated in the design of all Hindu temples of the more orthodox type. In this building more than in any other we see the effect of the impositlon of Islamic ideals on those of the Hindus, prepetuated in stone. Even more pronounced is the outcome of this impact on the structural treatment of the interior, which, except for the fact that the entire conception appears to be an anamoly, is a very fine architectural effort of or great dignity and excellent workmanship. For the roof of the mandapa, instead of being the low curved ceiling usual in the temple design, consists of a high vaulted dome formed of interesecting pointed arches, in its structural procedure not unlike what is known as the four-part pointed vaulting of the Gothic style. This system of roofing in the temple is an illustration of the influence of the contemporary construction of the Mughals being copied and adapted from that used in several of the mosques of this period, as for instance in the aisles of the Jami Masjid (c. 1580) at Fatehpur Sikri, the state capital of the Emperor Akbar."

Of the remaining temples, the temple of Jugal Kishore is the most prominent. Its shrine is octagonal in plan and is attached by one of its sites to a rectangular assembly hall. Around the main eastern entrance there is a considerable amount of carving which has a noticeable Islamic flavour. It may be remarked that the most distinctive portions of several of these temples are the śikharas which in style and shape are unique as they bear little or no resemblance to any other kind of temple spire and hence they may be viewed as an independent evolution, of course on the new later medieval pattern which got impetus from the Mughal architecture. The Hindu śikharas

are adapted as minerets. They rise from an octagonal plan and taper into a tall conical tower; for example that of Madan Mohan as much as 65 ft. in height, with a broad band of mouldings outlining each angle. Further, at intervals throughout their height are similar bands of mouldings placed transversely, so that the surface effect is that of a series of diminishing rectangular panels. Overhanging the whole at the apex is a pondorous finial, the Amalaśilā, a flat circular disc with its outer edge ornamented with a boarder of massive knob-like petals or flutes. In the opinion of Brown this unusual treatment of śikhara of Brindavan temple has not much to commend it.

VĀVĀṬA AND BHUMIJA PRĀSĀDAS

Something has already been told of these two styles in addition to the ternary of the Drāviḍa, Nāgara and Vesara. Vesara being conspicuous by its absence in the Samrāṅgaṇa-sūtradhāra as it is more an admixture than an independent evolution, is also not given any prominence by me. There are two more styles according to our text and they are represented in the remains of the later Chalukyan or Hoysal temples and Bihar-Bengal structures. Accordingly this section will deal with these two manifestations.

Vāvāṭa and later Chalukyan or Hoysal style—the Vāvāṭa-Prāsādas— The cradle of this style as already pointed out, is the capital seats of early Chalukyans—Aihole, Badami and Pattadakal. In the course of time this later phase developed. Mysore, where the majority of the later Chalukyan temples is situated, helped very considerably to the development of this new phase. The Mysore has had a long artistic tradition, an eminent æsthetic sensibility as stimulated by strong and stable Chalukya-Hoysala rule. Nevertheless there are fundamental differences between earlier and later evolutions. Firstly a radical change is perceptible in the use of the material. It was a transition from large and unwieldy blocks of sandstone to a stone of much finer grain a greenish or bluish block chloritic schist. Accordingly the masonary was more refined.

Some scholars have classed these Chalukyan temples as representing the Vesara or mixed style; but in the opinion of Brown, evidences of northern development are almost negligible while the effect of the southern style is distinctly marked. Accordingly he divides the Chalukyan temples into two developments. Firstly in the more typical style as evolved within the state of Mysore and secondly in those located outside this country and showing the influence of the Dravidian overlapping and interpolation.

Mysore State :—Out of over a hundred temples enumerated in Mysore state more than eighty are in Chalukya-Hoysals mode. Their architectural composition has been examined by writers like Percy Brown under the following four headings :—

1. The configuration of the building and the shape of the plan.
2. The treatment of the wall surfaces.
3. The formation of the tower, or śikhara ; and
4. The design of the pillars or the order.

1. "The central structure, or main building, in its simplest form resolves itself into the customary three compartments, namely, the cella, or garbha-griha attached to a vestibule known as the sukhanasi, which connects with a pillared hall or navaranga ; in front of the last is very often an open pillared pavilion or mukha-mandapa. It is however in its actual conformation that the Hoysala temple is distinct from all others. In the first place many of these structures, instead of consisting of a single cella with its pillared hall, are multiples of this system, in numerous instances, they are double temples having most of their essential parts in duplicate, and quite frequently they are triple, quadruple and in some instances quintuple in their plan and general arrangements"—Brown. Another characteristic of the Chalukyan temple is the stellate orAṣṭabhadra plan which is obtained by means of an intricate geometrical proposition which consists of a combination of equal squares each with a common centre but whose diagnols vary by several degrees ; the amount of difference in degrees being in accordance with the number of points required to form the star. The typical Hoysala temple-structure is both Nirandhāra-Prāsādas and Jagatī-Prāsādas as it stands on a high platform which is much wider and more spacious, than appears necessary, thus leaving a broad flat surface or terrace all round the temple. It had a definite purpose. For, in none of these temples is there an interior Pradakṣiṇāpatha. and this space provides a suitable substitute for processions or circumambulations.

2. The general effect of the wall surfaces is one of horizontality as most of the temples lack their towers and superstructure and consequently, these, as peviously made in regard to the earlier examples, are more sabhā maṇḍapas than hall-temples. These are the Jagatī-Prāsādas of the Samarāṅgaṇa. This Jagatī terrace is a high and vertical basement in some instances nine or ten feet in height, not formed of mouldings but made up into a number of bands containing animated sculptured designs and running right round the building. Percy Brown is very apt in his description—vide Indian Architecture, p. 168 4th para. The three horizontal divisions of the Vimāna wall are more

ornate than the two comprising pillared hall and coupled with the stellate plan of the structure where architecture simply turns into plastic art of sculpture as in this wide wall surface the Hoysala craftman placed within ornate niches and under foliated canopies the images of his gods, so elaborately chiselled that they scarcely be regarded as part of the architecture, because each appears as a distinct and independent example of plastic art.

3. The third element of the Hoysal temple is the design and the treatment of the tower or śikhara which is keynote of the style. Here also the stellate system is carried through to produce a fluted effect. The motifs that make up the horizontal and vertical pattern of śikhara consist of a complex grouping of miniature shrines and niches, each tier being separated either by a sunk moulding or a fretted string-course. In mass this type of tower has no effective height and its contours, being a section of a parabola are not strong outline. There is a certain plastic beauty in its rich sculptured texture, but architecturally it is formless, and lacks structural strength.

4. The fourth and the last element refers to the particular shape of the pillar and its capital in a word the 'order'. It is distinguished by a 'four-square' bracket above. The pillar shaft is monolithic as usual characterised by square pedestal and bell-shaped member towards the lower half of the shaft. Further the strut-like brackets were carved of one state into images enshrined within leafy aureoles and are known as Mandākinī figures. So elaborately are they sculptured as to reveal in execution and high finish those in the niches on the vimāna walls.

To put in the nutshell the whole composition is more than an architecture. The mode is not that of a builder, but that of artcraftsman such as the sandal-wood carver, the ivory-worker, the metal-caster and also of the gold-smith. What he produced was in reality not architecture, but applied art. In veiwing this art some designate it 'architect's architecture' or 'artist's architecture' which really is 'sculptor's architecture'. The Mysore temples owe their character more to the sculptor than to the mason. Further running through the entire composition of the temple, are the long bands of the narrative art, illustrating with the utmost detail and in a singularly dramatic fashion, extracts from the nation's mythology and folklore with which even the humbliest would be familier. Percy Brown therefore, rightly remarks that under these conditions it is not surprising that the temple-builder became a story teller in stone, so that his productions appertain more to an illumined missal transmuted into sculpture, than to a full scale architectural composition.

Examples:—The larger and more important are incomplete, hence they can not represent the temple in its full expression. Hence we have to look to smaller buildings. Among these the followings are more mention-worthy:—

1. The Lakṣmīdevī (quarduple) at Dodda-guddavali A.D. 1113.
2. The Keśava (triple) at Nagamangala A. D. 1117.
3. The Buchesvara ('') at Coramangala 1173.
4. The Īśvara (double) at Arshikeri 1220.
5. The Harihara temple ('') at Harihara 1224.
6. The Keśava (triple) at Honnahalli 1234.
7. The Lakṣmī-Narasimha (triple) at Nuggihalli 1249.
8. The Keśava (triple) at Somanathapura 1268.

Most typical and complete is the Keśava temple of Somanathapur. It is a triple shrine called trikūṭācala. The Samarāṅgaṇā-sūtradhara as we have seen describes in one of its chapters the 'Saḍtriṃśati-Nāgara Prāsādas, and it appears these temples illustrate this Vāstuśāstra variety of Nāgara or North Indian style of temple-architecture. It illustrates the Chalukyan style in its late maturity. Owing to its triple combination, the plan of the temple forms the shape of a cross and the towers being in the stellate design. The whole structure stands on a raised Jagatī and its plan is fairly simple as it consists of a main pillared hall in the centre at the western end of which are the three shrines, one in axial alignmant with the hall, the others projecting literally, like transcepts, thus producing its cruciform effect.

Belur temples:—A group of temples at Belur illustrates the earlier and larger examples. All temples are within one enclosure and few sights could be more richly picturesque than this assemblage. The temple of Keśava in this group is more interesting though it has lost its superstructure. A unique feature of this temples is its sculptured figure-subjects on the perforated screens between the exterior halls of the hypo-style hall. They are 20 in number, 10 of which are treated geometrically and the rest illustrating the Purāṇas. The sculpture of the temple especially of the pillars is really master piece and Percy Brown has very vividly described it—vide page 171, 3rd para.

Hoysaleśvara temple at Halebid. The highest achievement of the Chalukya-Hoysala school of architecture is the Hoysaleśvara temple at Halebid. Unfortunately it is also a truncated structure. It is the supreme climax of Indian architecture in its most prodigal plastic manifestation It illustrates a phenomenal concentration, superb technical skill, ingenuity, imagination and profound religious consciousness of

both the Kāraka, the donor and the Kartā, the architect, Sthapati. Percy Brown views it as a monument having no peer in regard to these above mentioned charecteristics. Even despite of the truncated superstructure this temples in the opinion of Brown, chiefly on account of the emphatic prodigality of its sculptural embellishment, is without exaggeration, one of the most remarkable monuments ever produced by the hand of man. It was the principal temple within the walls of ancient city of Darasamudra, which for three centuries flourishing as the royal capital of the Hoysal empire. It is now relegated into a hamlet called Halebid some 50 miles north-west of Mysore "of the temporal power of this one-time great capital city of its palaces and citadels fortification and civic buildings, there remain now only grass-grown mounds. Yet of the spiritual life of its people this fine temple is still a standing monument when all that was material has faded into oblion. Hoysaleśvara was designed and erected as an inscription states by one Kedaroja the master builder of Narasinha (1141-82) the Hoysal king under the supervision of Ketamalla chief officer of Public Works".

On the entrances too the sculpture is very beautiful. The statues of Dvārapālas in tribhaṅga or three-flexed attitude and latā toraṇa or archway supported by Yali (those water-unicorns shaped like huge pachydermatous quadrupeds, spouting foliage on either side) and the central figure of Tāṇḍaveśvara wildly dancing, are more remarkable. The mandākinī bracket over the capitals of the pillars are as usual and are in the line with the order of this style of later Chalukyan architecture.

N. B. This is one phase of the later Chalukyan or Hoysala style, there is yet another phase which for its consummation had its origin and evolution in the earlier mode. Paucity of space forbids me to review this phase in detail, nevertheless a bare mention of the temples may serve the purpose. There are about fifty temples built in this phase located in the northern boarder of Mysore state astride the upper beaches of the Tuṅgabhadrā river.

The earller buildings are located at Kukkanur like Navalinga shrine and Kāleśvara. Not very far off this place, a Jain temple was built at Lakkunadi. Mukteśvara at Chaudadampur, a hamlet on the banks of the Tuṅgabhadrā river towards the eastern boundry of the Dharwar district may be illustrated as representing a fuller consummation of this style. This consummation, again is exemplified in several other temples of which the three finest are the Kāśiviśveśvara at Lakunadi the Mahādeva at Ittagi and the Mallikārjuna at Kuruvatti.

Bhumija: The climate and culprit are both responsible for scanty remains in this part of the country. The nature of the soil and the climate both encourage the rapid growth of jungle vegetation, and once a building ceases to be cared for, the creeping shrubs and trees rapidly take charge, soon to tear it to pieces so that before long it becomes merely an unrecognizable mound of ruin. As regards the culprit (the Mohammedans) the Adina Masjid, built by Sikander Shah was constructed almost entirely of the materials taken from the demolished city of Lukhnauti, the capital of the Hindu dynasty of Senas. In spite of the destruction brought about by the climate and the culprit, it is possible to discern from the remains three separate movements illustrating the course of architectural movement in this region:

1. It has two sub-branches one greater Bengal akin to Orissa, the other, an indigenous style of building, appertaining to a form of folk-architecture, notable on account of its sectarian and sociological aspects.

2. That powerful Hindu Buddhist movement which flourished in Bihar and the Gangetic plains giving rise to monastic establishments.

3. Outcome of the "Eastern School" of art and architecture under Palas and Senas, the greater India.

Mayūrbhañja : It repreresets the first movement where at an ancient temple-site of Khiching a good piece of architecture and sculpture has been unearthed to rank it as one of the noblest monuments of Indian architecture and sculpture. The districts of Burdwan and Bankura illustrate the Southern Bengal development of art. It also resolves itself into two distinctive types, one allied to Orissan movement, the other by self-originated mode, expressive of the people and their invironment. The former are built mainly of stone masonary and as in Khiching pattern, are isolated towers or śikharas enclosing a cella for the image or symbol, the liṅga. They are designed on the same principle as those of Bhuvaneśvara. A striking illustration is a group of shrines at Barkar in the Burdwan district locally known as Begania group owing to a fancied resemblance to the fruit of egg-plant "Begana", they are probably of the Pala period and therefore of 9th or 10th centuries. Among the other example of this clase is the temple of Telkupi in the Manbhum district. The most ornate is the Sidheśvara temple at Behulara in the Bankura district of the 10th century. Numerous other temples of the order are found distributed throughout south-western Bengal and Manbhum district all apparently built while Pala dynasty was in power and hence dating between 8th to 11th centuries,

The other phase of this movement as already referred to is an indiginous form of building adopted on the soil and moulded into some ornamental pattern. Though cabin-like structure it gradually evolved into a system derived from the śālā houses i.e. the wooden houses and bamboo thatched huts of ancestral forest dwellers. . Brown remarks that this mode of building, although superior to what may be termed folk-architecture, never rose to classical heights. It nevertheless speaks of freshness and spontaneity.

As regards the second phase (Hindu-Buddhist phase), Paharpur in the Rajshahi district reveals a monumental edifice of stupendous proportions after excavation. Founded by the Pala ruler Dharmapāla towards the end of the 8th century it was known as the great Vihāra of Dharmpāla. Each of the cells presumably contained a large statue of metal, one of which may have been that fine figure, a product of the famous Varendra foundry, discovered at Sultangunj and now deposited in the Birmingham Art Gallery.

Now remains the last of the great movements which brought to Bengal a phase of building art noted for considerable elegance and consequence. Percy Brown describes it as an extension of the "Eastern School" of architecture and art which due to the incentive of the Pala and Sena dynasties to have flourished with great vigour at Lakhnauti, the capital of the Senas now almost a lost site near Malda but originally comprising a large complex of basalt buildings of a particularly substantial and ornate description. It was however completely despoiled by the Mohammedans after its capture in 1197 in order to provide the materials for their capital at Gaur. The lost temple type of pre-Islamic Bengal may be studied from the materials employed in the great congregational Mosque at Adina in Pandua.

A particular interest lies in a moulding formed of the ropilike convolutions of Śeṣa, the endless serpent surrounding the jambs with a close and realistic cluster of the same coils comprising the 'keystone'. Outside this, is a series of trefoil niches and wherever required are scrolls of foliage, enclosing various symbolic forms among which interpretation of 'vase and foliage' of the Guptas may be identified.

The high lights of the secular architecture can also be corroborated from the materials taken from the palace of Ballala Sena and built into Muslim edifices. Triveni and Saptagrama were noted for their exuberance of characteristic architecture. The Mazar of Zafar Khan Ghasi illustrates this. Now as regards the influences of

these two powerful movements in giving rise to the monuments of Greater India, we shall see them in proper place—vide Greater India Hindu temples.

TEMPLE-ARCHITECTURE IN BOARDER LANDS

Kashmir. Kashmir has been famous for many developments. Kashmir Śaivism is one of the most fascinating philosophy. Kashmir is accredited with many writers of repute. Rājataraṅgiṇī of Kalhaṇa, Vikramāṅkadeva-carita of Vilhaṇa and a host of works from pens of renowned writers like Ānandavardhana, Abhinavagupta, Mammaṭa, Kaiyyaṭa, Bhaṭṭa Lollaṭa etc. etc. are well known. Thus, not only in the realm of literature and philosophy, but also in art, Kashmir has its distinct contributions. Through-out its history Kashmir has experienced an art-life of its own. The natural position of the country coupled with its isolation could maintain its aloofness from its succeptibility to central Asiatic upsurges, cross-currents—ebb and flow on its boarders. It could therefore continue consistently to maintain a certain indigenous and independent type of culture. The Kashmir's bountiful scenery, the lake, the river, the meadow, the forest, the mountain, the snow-clad peaks, its clouds and sunshine, its light and shade, its dawns and sunsets, its changes of seasons, its pegantry of colour, and what not, has produced a wonderful stimulation on the artistic creations of the land.

So far as the art of architecture is concerned, three phases of its movement are discernible:

1, The early or primitive, from 200 A. D. (merely foundational remains).

2. & 3. The classical epoch 700-1400 A. D. (A. Buddhist; and B, Brahmanical).

Buddhist remains:—Without going into the details of the first, let us concentrate on the second. The latter phase is characterised by two phases—the earlier and later, the former being represented by mainly Buddhist attribution, while the latter was entirely Brahmanical. The first phase or early Buddhist period is represented by bare foundation as result of excavations at the two sites, one at Harwan near Srinagar and the other at Ushkar near Baramula. Harwan occupies an ideal situation on the slopes of high ground overlooking the crystal waters of the Dal Lake, with a glorious range of mountains in the distance. Here in the early centuries of the Christian era there grew a prosperous Buddhist settlement which included the usual

monastic establishment—a stūpa accommodation for the resident monks, several chapels and a chaitya hall or temple. The Gandhara affinity is perceptible in every arrangement. There also appears to have been a free standing pillar of the Aśokan type.

Brahmanical Remains:—The early phase was entirely Buddhist but the medievel movement is characterised by both the religious upsurges. It was the beginning of a grand classical development of architecture of which the first records emerge in the eighth century. The difference in both the phases is remarkable. Percy Brown makes a very apt estimation of it—vide Indian Architecture page 186.

It was due to the catholicity and toleration of that forceful personality, one of the greatest rulers, Lalitāditya (727-760) that this sudden progress in the architectural evolution of the country was possible. He encouraged both Buddhism and Brahmanism by foundations and dedications—in true religious merit of pūrta-dharma, of imposing monuments to both the creeds. Writers like Percy Brown are at their wit's end to surmize this out-burst of architectural acumen in Lalitāditya's mason-architects who have shown such a high-skilled and masterly dexterity in the execution of architecture. I may however suggest that artistic creations are only the outcome of the thought pattern of the thinking aspect—the architect-ācharyas, the sthapatis and the sthāpakas, who have a very ancient geneology of their own, as already referred to, and the Kashmir the rich store-house of ancient learning and lore can rise to these hights without any external influence of either Gupta artistic renaissance or any other similar upsurge.

As regards the details of the style and the technique of the perfection a very fresh field is waiting any student who could prove that the style is indigenous. Modern scholars like Brown see in the style of Kashmir a making from many sources and I take the liberty to reproduce his mind:

"In its design the Kashmir temple is a conception which may be best described as of a classical order, one may go so far as to say that it recalls distant memories of the productions of the Gracco-Roman schools. Such a generalization is emphasised by the peripteral treatment of the composition, with its pillared porticos and peristylar arcades, thus by association of ideas bringing to mind the colonnades and columned perspective of the Parthenon, and other Hellenic buildings. The source of some of this classical character is fairly obvious, as it was most certainly derived from

contact with the monastic buildings of Gandhara, for in a manner the Kashmir style was a continuation of the Græco-Buddhist movement, which as already shown, penetrated into Kashmir in the early centuries of the first millennium. In addition to this attribution, however, there are distinct evidences of influences from a more distant origin, as is shown by the particular kind of capital, or order, employed almost exclusively in the temple architecture of the country." Needless to go into further details.

With this general introduction to the character of the style now as regards the monuments it may be said that earliest monuments produced in this classical mode were Buddhist. The principal sites being at Parihaspura, 14 miles north-west of Srinagar and at Puranadhisthana now the modern village of Pandrethan. Leaving this Buddhist aftermath, let us concentrate on the Brahmanical temples. The Brahmanical buildings are also considerably ruined. Their remains show that the creed of that region differed in its ceremonial, from that of most parts of India. Percy Brown says, "The temple of the valley included in its scheme no assembly hall but consisted of a main central shrine, or sanctuary, and to this, with the divinity in its cella, the devout paid their homage. This central building was isolated within a rectangular courtyard surrounded by a cellular peristyle, with a large gateway giving admission to the sacred enclosure on its front side. It will be seen therefore that the composition, as a whole, appertains more to a central tabernacle, or sanctuary for the accomodation of the deity, than a place for congregational worship. In this respect and also in others, the conception of the Brahmanical temple in Kashmir seems to have taken some of its character and arrangements from the stupa-courts of the Buddhist monasteries of Gandhara. Moreover, in its architectural treatment, it appears to have derived little from that important development of temple building which at this time was taking place in Hindustan. There is no sign of the Indo-Aryan mode in its structure, nothing of the sikhara nor of the columned hall; the Kashmir temple, to all intents and purposes, is a manifestation of an independent ideal." He further remarks in the conception of the architectural style, "there are three structural formations of such a prominent nature that they go a long way towards shaping its character. These are, (*a*) a recess or niche composed of a trefoil arch within a high-pitched triangular pediment, (*b*) the pyramidal roof, and (*c*) the employment throughout of a variety of fluted pillar, with capital and entablature complete, resembling in some respects the Doric order of the classical mode." The other

notable factor of the Kashmir style is the practice of placing some of the temples in the the centre of a shallow tank of water as may be seen at Ludov, Pandrethan and elsewhere, thus denoting the prevalence of a form of Nāga or serpent-worship, water being a symbol of the cult, masonry being executed of abnormally large blocks of stone almost megalithic in appearance and an interesting feature being the constructional principle applied in the production of the ceiling i. e. a semi-circular dome of great proportion as is evident from the remains of the Rudreśa in the village of Ludov. The medieval development of Brahmanical temples is represented by two golden periods, or in the words of Brown, to be more precise it rose to its greater heights under two prominent building rulers, Lalitāditya (8th century) and Avantivarman (later half of ninth century). The oldest example is Rudreśa at Ludov and in the opinion of Brown, resembles the vihāra of Guniyar in the Swat valley of the frontier Province. In the Śaṅkarācārya temple on the Takht-i-Sulaiman, the style is seen to be approaching its final form. Its position is uniqe overlooking the city of Srinagar the great loop of the Jhelum river being at its feet. The completed form of the style was attained with magnificent effect in the great temple of the Sun at Martand which became the model for all subsequent Brahmanical temples in Kashmir.

The temple of Martand illustrates very vividly the Prajñā of the Sthapatis, where the works of man and those of nature are coordinated. At Martand, a site encircled by majestic ranges of mountains demands composition having features of a special order for it to be formed in harmony with conditions of such exceptional grandeur. The temple of Martand was the supreme effort of Lalitāditya's builders. The other temples of note, built in the same grand style, are collection of buildings at Wangnath some thirty miles north-west of Srinagar. Here was an important halting place on the pilgrim's way to the sacred waters of Gangabal, a solitary tarn among the mountain peaks. Among the three groups of buildings one is identified as dedicated to Jyeṣṭhā Devī which shows the goddess was not the monopoly of the south. The second golden age, as already remarked was brought about by Avantivarman (854-883) and his immediate successors the notable temple being that of Avantiswami; the details may be purviewed in Brown's book.

After Martanda and Avantiswami, it seems that the style has done its job. Nevertheless there are several manifestations, a notice of which

may be very cursarily taken in the following temples:—

1. Temple at Bunior and Dhathamandira near uri both in the Jhelum valley road.

2. Two important Śiva temples—Śaṅkaragaurīśvara and Sugandheśa built by Śaṅkarvaman (883-92) successor of Avantivarman, the latter named after the queen.

3. The miniature Śiva temple at Purandhisthan three miles from Srinagar shows the progress of the style, another stage.

4. Other shrines monolithic in character such as those at Payar, Mamal, Kother and Bumazu illustrate the decline for the style.

5. Privincial Offshoots in Northern Panjab and the North-West-Frontier may be classified in three sub-groups:—

(a) those at Amli, Katus, Malot and Nandna.

(b) several at Bilot; and

(c) others at Kafir Kot both the last named being on the river Indus in the North-West Frontier Province.

Nepal. The building art of Nepal displays many original features. These Nepal structures provide a number of provocative factors relating to the evolution of the building art in Asia as a whole. Brown makes a very vivid observation: "In the sphere of architecture Nepal illustrates, with marked significance, the impact of two of the most forceful civilizations in the East, that of India on the one hand, and of China on the other, the two meeting within the region of Nepal's mountainous borders. For geographically, historically and politically, the country occupies a position between these two great empires, and during its course has drunk deeply from the cultural springs issuiug from each, drawing its inspiration first from one and then from the other, alternatively, as the political currents ebbed or flowed. The influence of these powerful streams of racial ideals is envisaged clearly in the building art of Nepal, while in addition there is the effect, religious and graphic, of that great tide of Buddhism which swept through the continent of Asia before and after the beginning of the Christian era, inspiriting every people and every activity in its progress."

The main tenor of life in Nepal is almost entirely concentrated in a localised area known as Nepal Valley within which are closely grouped the three capitals of the kingdom, Kathmandu, Patan and Bhatgaon. The inhabitants of the country, originally immigrants from Tibet, are known as Newars. Their production in the field of Architecture as the capitals of Nepal amply testify, that they

possessed an artistic sensiblity of a particular exuberant nature. This indigenous aesthetic tendency was stimulated and influenced at intervals by currents from sources exterior to the country. Further the early under-currents of Buddhism are corroborated by the pilgrimage of Aśoka himself who founded innumerable stūpas commemorating this event.

The two of these stūpas have been identified as Svayambhū Nātha and Boddha Nātha. Brown's description conveys their architecture very well—see Indian Architecture page 196.

This is about of the early architecture of Nepal. Now of the subsequent onslaughts in domain of art, the Eastern School of Bengal and Bihar dominated it which produced secular buildings, the palaces etc. needless to be viewed here in the context of temple architecture.

This Mulla regime, when the three capitals rose with all their characteristic shapes is characterized by more civic architecture than the religious or temple architecture. The town-planning, the palace architecture, the Durbar squares etc. played the prominent role in the subsequent character of architecture. In the words of Brown, regarded as a whole the structures of Nepal, notably those of a sectarian ascription fall into two categories, those of 'śikhara' variety clearly derived from the style of the temple favoured in India and those of the multiple roof design associated with the pagodas of China, the former being mainly constructed of masonry while the latter are largely composed of wood. The Nepali temples, whether of the śikhara or pagoda kind were not designed for cogregational worship, but were really shrines enclosing a cella or chamber for the divinity or symbol and therefore were objects of devotion in themselves.

The secular or civil architecture may be left out here for its details do not come in our purview. But a reference may be made to an interesting architectural feature of the civic art which is of striking originality. It is the monumental pillars as these exist in considerable number in Durbar Squares. "The free-standing pillar of the Newars is a monolithic erection, moulded and ornamented with patterns of historical derivation and crowned with a capital of lotus petals, expanded so as to form a circular basis for the metal superstructure. Apart from groups of divinities, mystic symbols, and other emblems, the most ideal use of these pillars was for the display of portrait statuary, so that several of the most illustrious rulers of the Mulla dynasty are commemorated in this elevated and dignified manner. Of these one of the finest that of Bhupatindra (cir. 1730) is

therefore a relatively recent production". Similarly the Lion Throne and Door of Gold represent the consummation of the Nepalese artificers' handicrafts, a work of art of the most splendid order.

Burma. The Burmese art falls into the following three periods:—

1. Early phase (200-800 A. D.)
2. Classical phase (900-1300 A. D-) and
3. Pagoda phase in which folk-art is executed chiefly in wood in a very distinctive style.

Early Phase:—The representation of the first phase lasted at the historical centres of Thaton in Pegu the capital of the Mangolian tribe known as the Mons or Talaings and at Prome, the capital of another tribe the Pyu. A religio-cultural approach from Buddhist India gave impetus for the erection of Buddhist monasteries.

The earlier structures consist of three examples at Honawaza (old Prome) dating about the 10th century A. D. and two other of 11th Century. The former group comprises of a stūpa, Baw, Lawgyi and the two temples of Bebe and Lymethne. The two temples at Pegan are those of Patathyma and Nanpaya in the village of Myinpagan both comparatively early examples of temple building in Burma. It is interesting to see in the interior the pillars ornamented in low relief with figures of Brahmā from which god the name of Burma (Brahmā) perhaps is designated. Another structure at Patpan is a stūpa, that of Shivasandan. All these early examples of Burmese architecture show Indo-Buddhist influence.

Classical art at Pagon:— There was a remarkable display of religious building in Middle Burma, having its cenrte at Pagon. The two most notable elements, any architectural out-burst is accompanied by, are Repose and Energy. In India the former is illustrated in Buddhist stūpa and the latter in Hindu temple. In the vast expanse of stūpas and temples spread out over the plain at Pagon, these appear to illustrate that stage in the process of architectural development when the two forces were silently contending for supremacy, to culminate finally in the emergence of energy in the form of modern soaring pagoda. This phase of Burmese achitecture at Pagon may be resolved into two clases of structure (a) stupas and (b) temple. Percy Brown however shows two exceptions to this classification the Mahabodhi (in imitation of the original Bodhi Gaya) and the Ordinating Hall. It is surmized that the mason-architects were brought from Bihar and Bengal and accordingly in short the buildings at Pagon may be most nearly defined as funda-

mentally of Indian extraction but designed and adapted to conform to Burmese conception. Percy Brown rightly remarks: "In the whole of the architecture of this great region lying between India and China, exemplified particularly in the buildings of Burma, there appears to have been a continual struggle for supremacy between the bulbous mass of the orthodox stupa combined with the outward curve of the Indo-Aryan sikhara on the one hand, and the ascending attenuated outlines of what is ordinarily known as the Chinese pagoda on the other. In an effort to bring about an agreement between these two somewhat conflicting architectural formations, the Burmese master masons were helped very considerably by adopting a form of elongated finial as a summit to their pagoda "spires", instead of the lateral *harmika* of the Indian stupa, or the short thick-set *amalaka* of the Hindu temple. This finial or *hti*, as it is called, is an adaptation of the multiform umbrella, and makes an appropriate finish to the tenuous shape of the Burmese superstructure. In spite therefore of the fact that although "Burma is surrounded by India, Tibet, China, Siam and the Malaya States" and "the culture of its people, their art and monuments are almost exclusively derived from India" a glance at the elevational effect of the architecture of the country will show that it owes not a little of its character, or at least its external appearance, to Far Eastern sources"

The typical example of the most glorious stūpas is the Mangalazedi erected in 1274.. As regards the temples, there are numerous examples such as the Gawdawplin (throne of the Ancestral Hall built in 1200) the Jhatpyinnu, the Shwegugyi and the Sulemani, but the largest and by far the most imposing of all, besides being the noblest monument in the whole of Burma, is the Anand Pagoda founded and dedicated by King Kyanzeth (1084-1112) in 1990 A. D. This building illustrates the finest period of Burmese architecture. In size alone the grand building, across its width including its porticos measures 300 feet, while the four-entranced enclosure within which it stands in a square of 570 feet. Its height too, is impressive as from the ground level to the finial of its main spire it is over 160 feet.

Ceylon. Apart from the ruins of ancient cities, the remains of stūpas or Dagobas some of immense size, in certain instances of colossal proportions, all constructed of solid brickwork, but with approaches and appertenances of granite in which pillars predominate, are the characteristic architectural manifestations of the earlier period. As regards the historical productions as the aboriginal people of the island were a primitive race, the Veddahs who wor-

shipped among their deities the 'god of rock' (Gale Debiya) gives us impression that the early simhalese were adepts at rock architecture. They were also great sculptors as is proved by the high quality of a colossal statue, of King Parākrama Bāhu at Weligama carved out of the living rock:

Anurādhāpura Remains. The structures are composed entirely of brick and are dissimilar in character from those in other Buddhist countries: An interesting example of this class is the Ruwanwaeli Dagoba at Anurādhāpura of which the foundations were laid by King Duttagāminī in the 2nd century B. C. Its grand ceremonial is vividly described in the Mahāvaṃśa, the ancient chronicle of Ceylon. Percy Brown has reproduced it and the reader is advised to read it there for his information.

Ceylon has also a tradition of Vāpī-kūpa-taḍāgas and its abulation tanks (*pokana*) or bathing places along with innumerable examples of style-baths were some of the side-currents of architecture. As regards the order of the pillars, they are characteristic of the emphatically peristylar character of the building art as is evident in their capital. In the words of Brown: "The shafts of the columns were invariably monolithic, without bases, generally square or octagonal in section and carved out of gneiss. Socketed into the upper surface was the *puhul*, or capital, of a design which has no counterpart outside Ceylon. The central portion of this feature is a double flexured vase-shaped element hexagonal in section and usually left plain. Contrasting with the simplicity of this unadorned member is the richly carved and substantial abacus which it supports, and the deep necking below with ornamental mouldings between (Plate CXXVII). There is no mistaking this "order", as it is expressive of the style, and although in some instances it varies in detail, the principle of its design in this early period is as indicated above. In a later phase of the art occasionally a more exuberant type was devised in the form of lotus pillars, as in the Nissanka Malla Mandapaya, but this was a development of the twelfth century, when the style was becoming more florid (Plate CXXVIII)." Further the stair way-approaches to the principal monastic building are indicative of the most remarkable architectural genius of siṃhalese artists. The later phase of the simhalese art is very much influenced by the architectural style of the Tamil country. The Andhras, the Pallavas and Cholas, all exerted their influence over the island. In the eleventh century the country came under the ruthless subjugation of Cholas. Accordingly the "Examples of this architectural importation from the mainland may be seen at Polonnaruwa in the two temples of Śiva Devale of the

eleventh century, related clearly to a somewhat earlier Chola temple at Srinivasanalur in the Trichinnopoly District,"

Another building of note is the Watadage or "Hall of the Relic" The same high standard of handiwork may be seen in other and lesser structures at Polonnaruwa, such as some of the "pokanas", including the famous "Lotus Bath", and the architectural gem known as the "Floral Altar" all of which serve to prove that in the twelfth century under enthusiastic patronage, the arts of Ceylon attained their consummation". Political conditions brought an end to this high maturity as Polonnaruwa was abandoned at the close of 13th Century. The arts suffered only to be revived when Kandy became the seat of Simhalese monarch from 1592 to 1815. It did not produce any great art.

HINDU TEMPLE ARCHITECTUCE IN GREATER INDIA

Greater India may be sub-divided into "Insulindia" comprising of Burma, Siam, Champa, Cambodia, Sumatra, Celebese, Bali, Borneo and Java and "Outer India" comprising China, Japan and central America, Burma. We have already taken notice of the Burmese evolution, let us now take up Cambodia first.

Cambodia. Sir John Marshall in the foreword to Le May's Buddhist Art in Siam remarks "to know Indian art in India alone is to know but half the story". Buddhism and Hindusim equally provided an impulse to spread the Indian civilization and culture together with the arts that they inspired in the several of the great countries of Asia.. "One other notable example of the later phase of Burmese architecture, and of a very comprehensive order, is the city and palace of Mandalaya".

Cambodia's monuments are a supreme achievement of Khmers and they testify not only to their style of outstanding character but also to their civilization of marked intellectuality and to refinement. Fergusson pays a glowing tribute to this race by complimenting as "one of the greatest building races of the world". The cosummation of their art lasted till 12th century. In the thirteenth century came their decline and in the fourteenth century they were over-run by the Siamese (Thais) and thus they had to desert their temples, palaces, cities to be swallowed up and obliterated by the tropical vegetation and other devastating forces of nature. It was only after some 600 years that the temple of Angkor Vat one of the greatest, if not the greatest work of man standing, was discovered by a French Naturalist in 1858. Racially the Khmers derived there name from the Hindu Kombu, the

Founder of their race, hence kambiya with its European form cambodia.

"There is a well-established tradition, which has been recognized by European authorities also, that in 443 B.C., Preathong, a Hindu prince, son of the king of Indraprastha (the modern Delhi), emigrated with a large number of his followers and settled at Choukan, north of Angar. 'In 125 B.C. the Chinese are said to have conquered the Cambodians. There is also a record that, in the first centuries of the Christian era, emigrants from Madras made their way into Cambodia, introducing the Brahman faith, the Sanskrit alphabet, and Indian rites and customs. The Khmer and Sanskrit epigraphic texts give details of a dynasty of seven kings who reigned from A. D. 435 to 680. From the death of the last king Jayavarman to the commencement of the ninth century there are no records. In A. D. 802 Jayavarman II, who may have been connected with the earlier dynasty, formed a new dynasty of eighteen sovereigns who ruled till A.D. 1201. To this monarch is attributed the foundation of the Cambodian kingdom, with its capital Angkor Thom. He is credited to have laid the foundations of the great city of Angkor Thom, the royal palace in its centre, the pyramid temples of Phimeanakas, the great temple of Bayon, and other structures."—H.A.I.A. pp. 338-39. The architectural history of Cambodia according to Percy Brown may be classified in the following 8 periods or sub-periods :—

1.	Upto A.D. 500 Pre-historic Phase	Early Period
2.	A.D. 500 to 800 Primitive Phase	
3.	A D. 800 to 1000 Formative Phase	Classical Period
4.	A.D. 1000 to 1100 Foundations of Classical Phase	
5.	A.D. 1100 to 1200 Culmination of Classical Phase	
6.	A-D. 1200 to 1250 Flamboyant or Baroque Phase	
7.	A.D. 1350 Decline	Final.
8.	A.D. 1431 End, conquered by Thias (Siamese)	

We are more concerned with Cambodian meridian reached in the 12th century, a century of marked architectural activity, distinguished by numerous notable undertakings particularly the erection of the temple of Angkor vat, the grandest achievement of the Khmer builders. But a few remarks are necessary to the early phases also. The early phase is characterised by the rudimentary timber-built-dwellings raised above the low-lying delta of the Mekong which very nearly approach our primitive Śālā-houses with the Indianization of the Khmers in about 5th or 6th century A.D., the so-called Primitive Phase (vide Brown) comes into view when in place of wooden abodes brick construction was favoured which is as much true of India as well,

Among the remains of this period the temple of Tat Pavon on the Mekong may be illustrated. Brown dates this phase between 500-200 A.D. Intervening two centuries 800-1000 may be said to belong to the marking the first stage of classical period, the Formative. King Jayavarman II transferred the centre of this rapidly expanding dominion to Angkor near the lake of Toule Sap.

Without making any detailed expatiations on the intervening periods, let us concentrate on the consummation of the Camdodian arts. Thus comes meridian of Building art of Khmers referred to as "culmination of the classical phase" and therefore a chronological and dynastical review is called for which may be done in a tabular form to avoid details :—

Temples	*Builders*	*Dynasty and age*	*Remains etc.*
1. The pyramidal temples of Phimeanakes.	Jayavarman II	II-King	
2. The great temple of Bayon	,,	,,	
3. The temple of Baku	Indravarmam	III	also completed the temple of Bayon.
4. The temple of Bakong	,,	,,	
5. The temple of Lolei	Yaśovarman	IV	also completed the temple of Phimeanakes.
6. The great temple of Ta-Prom (Brahmanical).	Rajendravar-man	IX	
7. The Great temple of Banteai	,,	,,	
8. The Pyramidal temple of Bapoum.	?	X	
9. The temples of Phnom chisor, Vat Ek, Phnom Baset, Prah. Vihar and Prah. Khan.	Suryavarman	IX	
10. Baneai T. Kean, Pre. Perp. etc.	?		
11. Vat Phu.	?		
12. Angkor Vat.	Suryavarman	II	16th and 12th Century.

Dr. Acharya (H A.I.A. pp. 340) has summarized a brief account of these temples from Fergusson's illuminating accounts and they may be purviewed there.

This account must prove that the temple architecture of Cambodia is primarily based on the Indian genius and we have to account this remarkable affinity both in architectural planning and details as well as the sculptural out-bursts. My contention is that our Śilpaśāstras record fusion of two great races, as per our geniological accounts of Viśvakarmā himself, one the Āryan and the other Non-Aryan, or Dravidian. The Śikhara and the pyramid illustrate this in nut-shell. In India the fusion is not so remarkable as in Cambodia. It is really remarkable that the confluence should have taken place in Indian Archipelago. The practice is in keeping with theory. I have already written something on the background of temple architecture.

The Institution of worship and the Puranic Dharma, the doctrine of pūtra as is enunciated in my work Hindu Prāsāda the Caturmukhī Pṛṣṭhabhūmi which amply illustrate these temples esp. the Angkor Vat which was originally dedicated to God Viṣṇu. Its detached shrines in the open parts the terrace on each side of the entrance hall, recall the Pañcāyatana or five-shrine planning of the temples of India which depict in the characteristic manner an equal homage to all the principal deities. The affinity in the śikhara construction and pyramidal disposition, no doubt is remarkable, yet Cambodia can claim its own elements which in their turn speak of outer Indian influences like Chinese and Egyptian.

This architectural renaissance in the medieval period is characteristic of all nations and civilizations. In Asia this has been the Eastern school and Percy Brown also elaborates similar thesis.: "Apart from the intrinsic quality of the art and architecture of two of the movements described above, namely that which expressed itself in the great Hindu-Buddhist monastic monuments on the one hand, and that which produced the temples and palaces of the Palas and Senas on the other, in a word the Eastern School, these two movements together were destined to affect profoundly the advancing tide of Indo-Buddhist civilization which was already beginning to overflow into the wide range of countries comprising Greater India. While the medium by which this Indian religio-culture was conveyed eastward was fundamentally the dynamic power of Hindu-Buddhism, which carried all before it towards the later centuries of the first millennium, the form it eventually assumed took its source from the movements which grew up and were so firmly founded in the holy land of Buddhism on the Gangetic plain. Changed in outward appearance by their change of environment and other influences, the architectural achievements of

such countries as Burma, Cambodia, Java, and to a certain extent Ceylon, in the mediaeval period, were basically of Indian extraction. So much so that the building art of the various civilizations which comprise Greater India may be regarded as belonging to one broad school, each of the races concerned working out its architectural conceptions according to its own ideals, but with the whole evolution created and unified by an intellectual, religious and material awakening which originally proceeded from India".

"An analaysis of some of the decorative effects found in these more distant architectural productions reveals similarities which cannot be coincidences but are actual facts. There are reproductions, both in design and in relief, of patterns which might be the identical handiwork of the stone carvers of Lakhnauti in Bengal. The same applies to some of the constructional features, as for instance in Java where the arch motifs and pilasters appear to be derived from the same source. But it was in the aims and intentions of these architectural achievements in Burma, Cambodia and Java, that the growth of the Indian conceptions is most significantly expressed. While the stupa still held its place as the premier Buddhist symbol, it was too abstract in its nature to appeal to the physical senses. Something was required endowed with more humanistic qualities, and such qualities were represented by the great monastic monuments of mediaeval India, of which the Dharmapala Vihara at Paharpur previously described was a notable example. In all the countries therefore which drew inspiration from this movement there evolved, in addition to the stupa, magnificent architectural creations in the form of temples, or similar religious edifices, enclosing chambers or cells in which were enshrined images, often colossal in size, in invested with halos and aureols, emblazoned with gold, glorifying the creed to which they gave concrete form. Through the spiritual power thus generated, man's imaginative faculties were so stimulated that he felt impelled to express himself in some substantial manner, worthy of himself and his belief. By some such means the grand monuments of Greater India were conceived, such as Angkor Vat and Borobudur. In these immense works of architecture we see the spirit of the monastic movement in India further materialized, taking its shape from the "Eastern School" of India, and not a little from the building art of Bengal".

Siam: "The ancient Śyāma-deśa was the north-western one of the six states forming the peninsula east of India and South of China. It th n included Burma proper and the northern part of modern Siam east of the Salwin, of which Haripuṇya-pura, now Lamphum, on the

Me-ping, was probably the capital. It was thus bounded on the west by Indian Ocean, on the north by China, on the east by the Champa-desa, and on the south by the Kambhoja-deśa, the sea (Śyāma-Sāgara) and the Malaya-desa".

The building art of Siam can not be said to be sufficiently pronounced. Siam is Śyāma-deśa of the Rāmāyaṇa in connection with the search for Sita, stolen by Rāvaṇa. Avoiding the details of Siam-history its different races and the Indian penetration the settelements thereof: "Essentially Buddhistic, the architecture of Siam, owing to the geographical accessibility of the count y, shows perceptably in its characteristics the influences of the Buddhist countries with which in the course of its history it came into contact. A few references may suffice to explain the extent and diversity of these external currents on the Siamese style of building at different periods. For instance in the temple of Maha-Tat, presumably of the twelfth century, at Sawank'alok, the tower, or śikhara, shows an affinity to those erected in the tenth and eleventh centuries by the Palas of Bengal, and in its detailed treatment to those of Angkor in Cambodia, or the Bhubaneswar temples of Orissa in Eastern India. The temple of Na Pra Tat (c. eleventh century?) 'is akin to the Javanese style of the seventh or eighth century', while in the temple of Chat Yot near Chiengmai there is a distinct resemblance to the shrine of Budh Gaya in Behar; it should be explained however that this great Indian monument, owing to its special sanctity on account of its personal associations with the Buddha, has been the original model for a number of buildings in Buddhists Asia. At Lamp'un the temple or P'ra Yun is reminiscent of the That-Byin-Nyu at Pagan, and from a more distant source, the shrine of the temple at Shri-Sarap'et in Ayudhya there is an approach to that of the Lankatilaka (Jetawanarama) of the twelfth century at Polonnaruwa in Ceylon. The list might be extended, the resemblance of some of these examples being more convincing than others, but they provide evidences that the master-builders of Siam not only received the impact of these external currents but were also sufficiently impressionable, as well as skilful, as to be able to make use of them in giving variety to the style of their own architectural conceptions".

The various types of structures peculiar to the architecture of Śyāmadeśa are the:

1. Vat or Wat a stūpa or temple
2. Pra a stūpa
3. Vihāra monastry

4. Bot consecration hall
5. Prakeo imperial places of worship, or Chapel Royal
6. Chattamukh (caumukha or Caturmukha) or shrine of four images.
7. Maṇḍab or Maṇḍapa, Pavillian or a large open hall.

Percy Brown remarks that: "These are apparently derived from two separate traditions, the P'ra-jedi being circular in plan, and the p'ra-prang being rectangular, and accordingly the former has its origin attributed to the Indian stupa, while the latter has been traced to the spire or sikhara of the Indian temple in the Indo-Aryan style. That the p'ra-jedi is a Siamese development of the stupa is quite clear, as the circular plan, and the bell-shaped element in its superstructure are ample proof, but its tapering elongation and finial have removed it far from the original tumulus or mound. Yet as with the stupa, the p'ra-jedi is a solid structure with no interior compartments, and is venerated, like the Crucifix in Christendom, as the most sacred symbol of the Buddhist faith. The derivation of the P'ra-prang is not so certain, but it has much the same significance and sanctity as the p'ra-jedi, although it differs structurally inasmuch as it may include an alcove or cella within its interior. Of the same tall aspiring shape, yet instead of the tapering finial it terminates at its apex in a rounded or domical form, thus recalling in this respect the amala-sila crowning the sikharas of the Brahmanical temple type".

We can resolve the architectural development of Siam into three periods. The first phase is designated as the Dvārāvatī the name of an ancient Kingdom situated between the two countries corresponding at present to Burma on the one hand and Cambodia on the other. Among the remains a few sculptures are interesting otherwise the buildings are rare. The discoveries however prove that they illustrate the combined influences from the south India, Mammallapura.

The second period or Khmer period was initiated in the 10th century which lasted for three centuries. Mainly being influenced by Burmese ideals the period is called Non-Khmer School as Khmers too were initiated into the Eastern-ideals. The surviving examples of the period are found in such old regions as Sawank alok, Suk'ot'ai and Pits-anulok. The two typical temples are found in the historical town of Lopburi, the ancient Lavo, eighty miles due north of Bangkok. "Of the two principal buildings here having Cambodian affinities that of the temple of Wat Mahadhatu, and ascribed to the twelfth century, is the most distinctive. Within a walled enclosure, and consisting of a sanctuary tower with its attached portico or mandapa,

its general appearance conforms to that of certain mediaeval temples in India. And although the architectural treatment combines elements recalling both the Indo-Aryan and Khmer styles, it is no slavish ccpy of either of these modes, but a definite original effort. It is true that the tower or śikhara, in the main, follows the outlines and also the subst ınce of Angkor type, and to a lesser degree those of the temples of India, but there any similarity to either of these styles ends.''

The other temple of Khmer attribution at Lopuri i,e. that of P'ra Prang-som Yot is of quite a different character, not associated with Buddhism, nor with the Brahmanical faith. It is a triple temple each surrounded by its tower. These are more closely affiliated in style to the later Cambodian type. The śikharas display their affinity with south Indian Gopurams though terminating in the amalaśilā, as in the blunted finial of p'ra-prang. Another temple in old suk'ot'ai is that of Wat Sisawai which is also composed of triple towers.

"Several other significant examples of the effect of the Khmer domination may be referred to, such as a temple at Pimai, built towards the end of the tenth century, another at Panom Wan possibly dating from the eleventh century, and that at Panom Rung of the twelfth, which, if these dates are confirmed, will give a series of examples showing the progressive development of the style."

The 13th century marks the beginning of the Tai period of building art on Siam which shows influence of Java and Ceylon. The background being the vital of Buddha worship, this period is famous for a colossal size of the Great Teacher notably in bronze, housed in monda-like structures as represented and illustrated in the temples of Maha-Tat at Sawank, alok and another having: "the same dedication at of Suk-ot'ai, where also is situated that of Cri Chum of a similar type, all found in the more northerly region of the country, while at Ayudhya towards the south, nearer Bangkok, is the temple of Cri Sarap'et (cir. 1490). This class of temple appears to have emerged during the earlier centuries of the Tai period, and in their architectural character as well as in their ritualistic aspect, they recall in some respects the planning and perceptions of the Sinhalese in their temple of Lankatilaka at Polonnaruwa".

In the 14th century the city of Ayudhya became the capital which was destroyed by the Burmese in the 18th century. With the establishment of the capital at Bangkok in 1782 shortly after the destruction of Ayudhya, Siam entered in its modern phase "of the

Tai period, when the arts of all kinds received encouragement from the throne. Many important buildings have been erected in Bangkok within the last century, comprising palaces, temples, stupas and shrines, which although they maintain the general character of the historical examples, such as the p'ra-jedi and the p'ra prang, it has become the custom to overlay these traditional forms with so much ornamentation that the simple dignity of the originals is obscured by a superfluity of mouldings and string courses, rich in themselves, but made more so by each being embellished with lesser patterns until the whole presents an appearance of meretriciousness significant of a decline in taste"—Brown.

This is the bare outline of the Siamese architecture, there are yet some other important manifestations but they need not be taken up.

Champa. "The earliest mention of Champā-deśa is in that passage of the Rāmāyaṇa where it is stated that king Sugrīva sent out emissaries in search of Sītā, stolen by Rāvaṇa. The king Aśoka's messengers also may have visited the country of Champa. According to the Arakanese traditions, the first king of Champa was the son of a king of Benaras, who settled at Rāmāvatī the present Rāmbyi or Ramri. According to another tradition, the first Indian kings of Champa were known as the Kauṇḍinya of the lunar race. Mainly on the basis of the Vo-chanh inscription in Sanskrit of the second or third century of the Christian era, it is clear that Champa had already been under a Hindu or 'Hinduized dynasty'. Dr. R. C. Majumdar takes Sri Mara as the first historical Hindu king of Champa. The Cham temples have been found in groups at Myson, Dong Duong, Po-Nagar, and Pho Hai areas, and individually at Binh Lam Khuong My, and Beng An"—Acharya.

Percy Brown says that these structures indicate, by their architectural treatment that the building art of the Chams was an independent regional movement but evidently of Indian ancestory. "M. Parmentier has made a technical classification of all these monuments under five headings. What he calls the 'primitive art' is represented by the Myson and the Po Nagar temples of the seventh and the first quarter of ninth centuries respectively. The 'cubic art', deriving its name from the cube-shaped roof of the temples, is represented by the Myson temples of the eighth century, Po Nagar temple of the late ninth century, and the Dong Duong temple of the same period. The 'mixed art,' deriving its title from a combination of 'primitive' proportions and 'cubic' roof, is represented by the Dong Duong temple of the late ninth century. The 'classic art' is so called because of

the architectural formula followed in the representation of the Myson temple of mid-eleventh century. The 'pyramidal art' derives its title from its pyramidal form, as represented by the Bang An temple of the earliest tenth century, Po Nagar temple of the late twelfth century, and the Yan Prou temple of the fourteenth century. Lastly, what is called the 'derived art,' has departed from the recognized canons of the classical art and is represented by the Myson temples of the twelfth century, the Po Khaun Garai of the fourteenth century, and Po Rome of the mid-seventeenth century—Acharya".

The Myson temples have been divided into some ten groups—vide Dr. Acharya's Summary H.A.I.A. p. 331-32. The deities installed in these temples include besides the phallus of Śiva, Gaṇeśa, Skanda, Brahmā, Sūrya, Indra and other gods and goddesses also.

Java & Bali. The earliest reference to Java is in Rāmāyaṇa, according to which the King Sugrīva, the friend and ally of Rāmacandra, is stated to have sent out search-parties in quest of Sītā, among other places to the island of Java (Yavadvīpa). The Indian colonization of Java was completed in fifth century A. D. when an extensive commerce was carried with Gujarat. This island is in Malava Archipelago and received the same form of religio-cultural upsurge as other countries of greater India by means of progressive movements which infiltera-ted into it during the courses of the first millennium. Owing to the longitudinal shape and orientation of the island as a whole, it has been found expendient to resolve the country politically into three regions, referred to as West-Middle, Middle and East and accordingly Percy Brown has described the building art of Java.

The western region does not possess architectural records. The central division, termed as Mid-Java is famous for a site known as the D. Jung Plateau where a group of Viṣṇuite temple was erected about the 8th century A. D. These Hindu temples represent the earliest phase of the building art in Java. A century later Mahayan Buddhism also began to make its appeal and for some considerable time as shown by their monuments, the two religions flouri-shed side by side.

"This combined movement led to the consummation of the architectural effort in the island, referred to as the Golded Age, where in Mid-Java, in an area, not far removed from the more recent capital of Jokyakarta, *the finest examples were created,* culminating in the grandest of all Buddhist buildings the stupa of Borobudur (c. 850 A. D.)—Brown."

The Golden Age of Javanese architecture abruptly ended early in the tenth century. In the eleventh century, a fresh move was initiated which lasted till 15th century when the people accepted Islam. Thus a newly oriented another movement on the part of the Indonesians, brought forth a reversion to a form of folk-art. Finally the occupation of the island by the Dutch in the 18th century A. D. brought in European forms which are the main features in the modern style. Percy Brown has presented a very informative tabúlation in his book 'Indian Architecture' on page 232.

This tabulation makes an interesting reading for us when we see that in the golden age of Mid Java the temples of Bhīma, Arjuna and other hindu temples also found a remarkable impetus for their foundation and dedication along with so many religious buildings of Buddhist attribution.

The Djeng temples have been designated by the names of the heroes of the Mahābhārata, such as Bhīma and Arjuna, but they were originally dedicated to Viṣṇu. The Bhīma resembles with the brick temple at Bhitagaon near Kanpur. After this initial Brahmanical phase as illustrated by the shrines at Djeng, a period of Buddhism intervened when a number of large and important buildings were erected on a separate site in Mid-Java, which were inspired by the advent in the island by the Sailendra of Sumatra (760-850) a powerful Buddhist dynasty "whose influence extended over a very large portion of south-east Asia towards the 8th century A. D. Their domination over a great part of Java stimulated the architectural aspirations of the people to a remarkable degree, so much so that the productions of the Sailendra-Sumatra period in Mid-java were of such a high order as to entitle this movement to be designated as already mentioned the Golden Age in Java's architectural history."

A large number of temples were built of which the most notable ones are the Kalason (778), the Sari, the Memdul (880) and the Pawn, which represent a phase in the building art of Java of great significance. "But contrasting with the relatively moderate dimensions of the above, and included with this group, as it was built about the same time, is the stupa of Borobudur, the largest and most remarkable monument erected to the Buddhist faith, and therefore in every way standing in a class by itself".

The Kala-an is dedicated to the Buddhist Mahayan goddess Tārā and is planned in shape of a Great Cross. In the opinion of Percy Brown, the general character of the work on the Kalsan temple and other examples of this group, seems most nearly allied to the art of Bengal of the Pāla period (8th century A. D.). On the upper hand the temple of Mandut is the most expressive of the Javanese art.

Boro Budur: The most acceptable intrepretation would be the shrine of the Many Buddhas: "The fundamental formative idea of Boro Budur monument is that of a dagoba with five procession paths. These, however, have become square in plan instead of circular; and, instead of one great domical building in the centre, we have here seventy-two smaller ones, each containing the statue of a Buddha; and one large one in the centre, which was quite solid externally but had a cell in its centre, which might have contained a relic or some precious object. With the idea of dagoda, however, Boro Budur also combines that of a vihāra. The monument may be described either as a seven or a nine-storeyed vihāra, according as we reckon the platform on which the seventy-two small dagobas stand as one or three storeys. It is, however, either for its dimensions or the beauty of its architectural design that Boro Budur is so remarkable, as for the sculptures that line its galleries. These extend to nearly 5,000 feet, almost a mile, and as there are sculptures on both faces, we have nearly 10,000 lineal feet of bas-reliefs; or, if we like to add those which are in two storeys, we have a series of sculptures, which, if arranged consecutively in a row, would extend over nearly three miles of ground." "These galleries run continuously around the Tjandi, broken only by a stone stairway at the middle of each side. Their walls are adorned with over a thousand sculptured bas-reliefs depicting scences from the life of Gautama Buddha in his various incarnations, groups of Buddhas, angels, and saints. Above these sculptures, on the parapets of the walls, are small recessed shrines, in all over 400, each containing a Buddha image a couple of feet high." "Above the four sculptured galleries rise three tiers of circular terraces, bearing, altogether, 72 bell-shaped, latticed dagobas, each about 5 feet in height and containing a lotus-enthroned Buddha, which may be seen through the lozenge-shaped openings in the sides. From the centre of the upper circular terraces rises what is left of the former apex of the shrine, a ruined dagoba about 30 feet high, containing in an interior chamber a large and apparently unfinished image though to represent the Buddha yet to come. The cone-orparasol-shaped spire, which doubtless once covered this highest dagoda, has wholly disappeared. The stairways of Boro Budur formerly had gate-houses at each landing and their arches are ornamented with great heads with bulging eyes. At the sides are the heads of nagas with upper lips prolonged into short trunks. The shrine, however, owes its fame more to its artistic details than its purely architectural features. Its wall sculptures are remarkable. The subjects are almost beyond enumeration and include practically every phase of life and action. The scenes portrayed may still be seen in the Java of today. Kings and nobles,

dancing girls and palace women, peasants and fishermen, bearded strangers from foreign lands, elephants and monkeys, deer and horses, birds and fish, fruit-trees and shade-trees, native houses, ships, war chariots, ploughs, musical instruments, state umbrellas, and hundreds of other things typical of the country are depicted here in a way that is wonderfully life-like and truthful. The representations of the scenes from the Jātakas (tales of Buddha's life in his earlier incarnations) are particularly interesting, for each one has its own story, and some of these are very entertaining."—Fergussion.

Percy Brown therefore rightly remarks:

"Regarded in all its aspects therefore the Borobudur represents not only the high water marks of Javanese creative genious, but stands forth as one of the world's greatest constructional and artistic masterpieces. Here it may be noted that this immense stupa corresponds in its vast bulk and sculptured magnificence to the other stupendous building undertaking rising somewhat later also in Greater India, the temple Angkor Vat in Cambodia. Both these grand architectural productions were an expression in material form of Hindu-Buddhist ideals emanating from an Indian source."

Prambanam:— In this very period (the golden age of Java as enunciated by Sailendra of Sumatra), Restoration also took place—a reveresion to the creed of Hinduism. It began about A. D. 860 and continued until the middle of the succeeding century when several important temples dedicated to the Hindu deity Śiva were built. Representing the Restoration phase in a complex of shrines known as the prambanan which in view of its size and importance, was probably conceived and constructed as a Hindu rival to the Buddhist Borobudur.

"This great Brahmanical temple-scheme in Mid-Java was completed about A. D. 900 and was clearly designed with the object of reviving the practice of Hinduism throughout the country. And just as the Borobudur made its appeal mainly on account of its colossal size, so the Hindu hierarchy realizing that in this respect it could not be surpassed proceeded in an attempt to rival it by a numerical effort for the Prambanam consists of an expansive composition aggregating over one hundred and fifty individual shrines arranged in rows on a commodious terrace, and, so that its influence should be as wide as possible, the main buildings were consecrated respectively to the deities Vishnu, Shiva, and Brahma, thus providing an all-embracing dispensation. Further, in order to be abreast with the sculptured reliefs proving so effective at Borobudur, a long

frieze was carved on the walls illustrating the mythology of these age-old Indian divinities".

This 3rd or the last period began about 950 A.D. and continued until the later half of the fifteenth century when it was gradually submerged by the approach of Islam. Γhis phase is characterised as Silver Age. Through-out its course the movement in the Eastern region resolved itself into three historical periods according to the dominant rule at the time. These are:—

1. The Kadiri (11th and 12th Centuires).
. the Singasari (1250-1292).
3. the Majapahit (1294-1478).

It is needless to dwell at length on these periods when we are already drunk deep with Javanese art.

Bali. In the island of Bali, detached by a narrow passage of sea from the mainland of Java, it is recorded, that when the latter was submerged by Islam what remained of the Hindu belief found a retreat in its little dependency. Bali's structural productions are but a pale reflection of the works of the great classical period as they flourished in the larger island.

As regards the remaining islands like Sumatra, Celebese and Borneo they may be left out for want of space as we do not find any stupendous undertaking there After all, all these islands reflect the greater India movement and its rcpresentation has been fully fathomed in the fathomless monuments.

HINDU ARCHITECTURE IN UTER INDIA

The glimpses of Indian art in outer India may be found in China, Japan and Central America, the last being most intresting where the remains of Maya Civilization have been discovered. Dr. Acharya has summarized the findings of the eminent orientalists and they may be purviewed in his work, H. A. I. A., pp. 372-75.

N. B.—Some of the appendices are not being given here as indicated in the body of the work for the want of space. Similarly a good many plans as indicated like

House-plans

Palace-plans etc. etc.

are also not given here. These are reserved for the Vol. III (Glossary and Illustrations) along with the representative illustrations of towns, temples and icons or images.

APPENDICES

ŚITE-PLANŚ
OR
VĀSTUPURUṢA-MAṆḌALA

N. B.—The charts A. B. C. as indicated on page 189 may be purviewed in the Hindu Temple (pp. 54-55) by Prof. Kramrisch.

PARAMAŚAYIKA PLAN OF 81 SQUARES

"Ekāśīti-padika"

Roga (Pāpa-rākṣasī)	Nāga	Mukhya	Bhallāta	Soma	Caraka	Aditi	Diti	Agni [Carakī]
Pāpa-yakṣmā	Rudra		P R T H I V I D H A R A (Six Padas)				Apavasta	Parjanya
Sosa		Yakṣmā				Apa		Jayanta
Asura	M I T R A (six Padas)		B R A H M A (Nine Padas)			A R Y A M A (Six Padas)		Indra
Varuna								Ravi
Puspa-danta								Satya
Sugrīva		Jaya	V I V A S V A N (Six Padas)			Savitā		Bhrsa
Dauvā-rika	Indra						Sāvitri	Nabha
Pitrgana (Pūtanā)	Mrga	Bhrnga-rāja	Gan-dharva	Yama	Grhak-sata	Vitatha	Pūsā	Anila (Vidārī)

N.B. The Pada-bhoga is to be seen in the Chapter 'Fundamental Canons of Hindu Architecture' page 194-95.

Maṇḍūka or Bhekapada (also called Cṇḍaita) of 64 Squares (Catuṣṣaṣṭipadika).

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<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td colspan="2">Pṛthivīdhara
2 Padas</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td rowspan="2">Mitra
2
Padas</td><td colspan="2" rowspan="2">Brahmā
4 Padas</td><td rowspan="2">Araya-
mā
2 Padas</td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td colspan="2">Vivasvān
2 Padas</td><td></td><td></td><td></td></tr>
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Presidiag deities and their allocation of Padas in the plan of 64 Squares.

N. B. Only the central deities are refered, others may be inferred from the preceeding chart.

I. 1. Central Lord Brahmā. 4 Padas

II. 2 to 5. Those adjoining the centre i. e. Aryamā, Vivasvān, Mitra and Pṛthivīdhara each occupying only 2 Padas—2 × 4 ... ... 8 ,,

III. 6 to 21. The eight of the central corners and the same number of external ones taking each ½ pada—½ × 16 ... 8 ,,

IV. 2 to 29. Among the other 24 external dieties Parjanya, Bhṛṣa, Pūṣā, Bhṛṅga, Dauvārika, Śoṣa, Nāga and Aditi, each occupy 1½ padas—1½ × 8 ... 12 ,,

V. 30 to 45. The remaining 16 external deities beginning with Jayanta and ending in Caraka each occupy two padas 2 × 16 ... ... 32 ,,

Total ... 64 Padas

ŚATAPADA VĀSTU (ALSO CALLED ĀSANA) PLOT OF 100 SQUARES

PṚTHIVIDHARA
8 Padas

MITRA
8 Padas

BRAHMĀ
16 Padas

ARYAMĀ
8 Padas

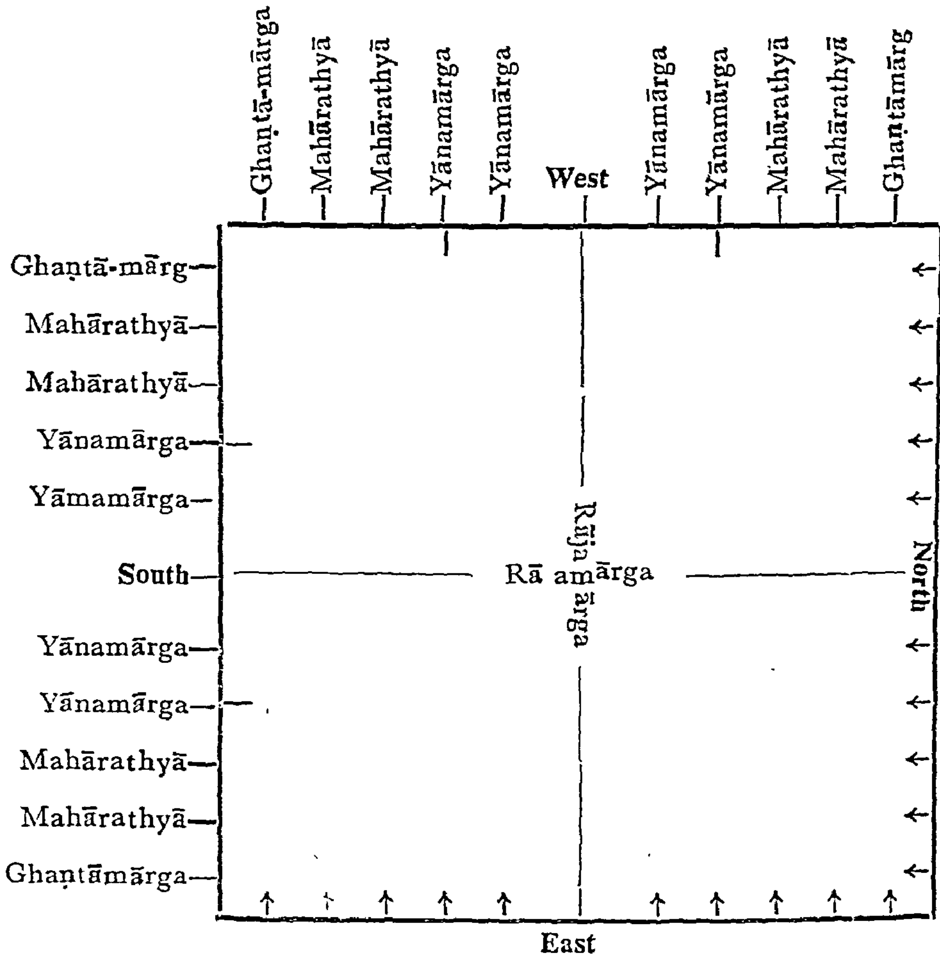
VIVASVĀN
8 Padas

PADA-DEVATAS

I.	1	Central Lord Brahmā	=	16
II.	2 to 5.	Those adjoining the Centre i. e. Aryamā etc. occupy 8 padas 4×8	=	32
III.	6 to 13.	Those called Central Pada-koṇasthas each occupying only one Pada like those in Ekāśītipada-Vāstu (12.18) 1×8	=	8
IV.	14 to 21.	The deities called the external Pada-Koṇasthas like Agni, Nabhas, Vāyu, Mṛga, Pitṛs, Kṣaya, Roga and Diti—each occupying 1½ padas—1½×8	=	12
V.	22 to 29.	Among the remaining 24 deities, the Parjanya etc. eight deities have two padas 8×2 each,	=	16
b.	30 to 45.	The others (sixteen) only one each 1×16	=	16
		Total ...		100

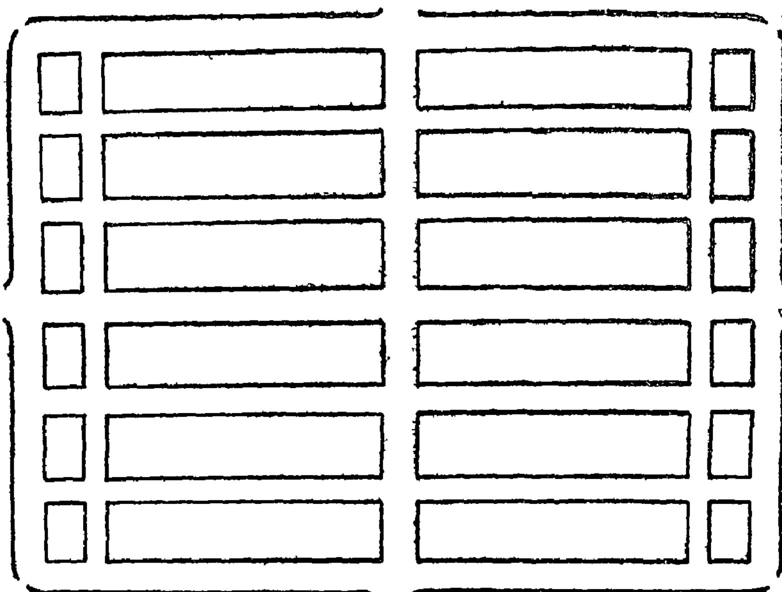
ROAD PLAN

(On Caṇḍitā)

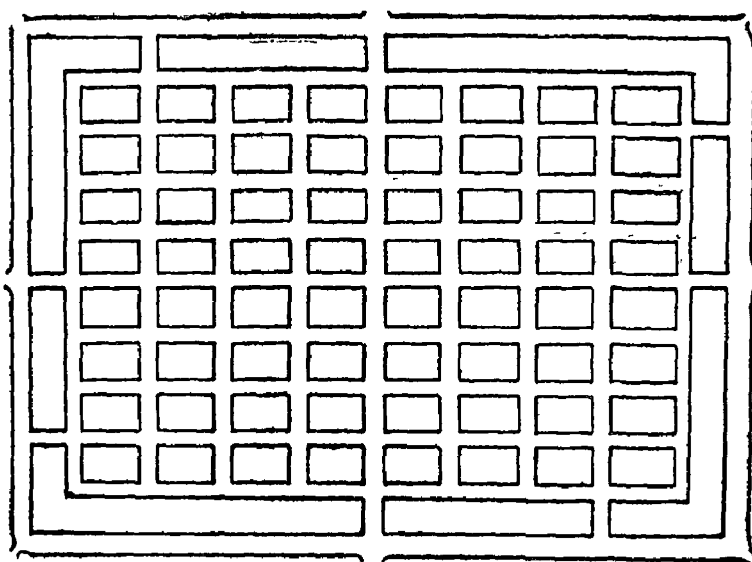


N. B.—Running to the west from the East and from the North to the South these are 11+11 = 22 main roads, the other 6+6 minor roads vide the S. S. are not shown i. e. the foot paths etc.

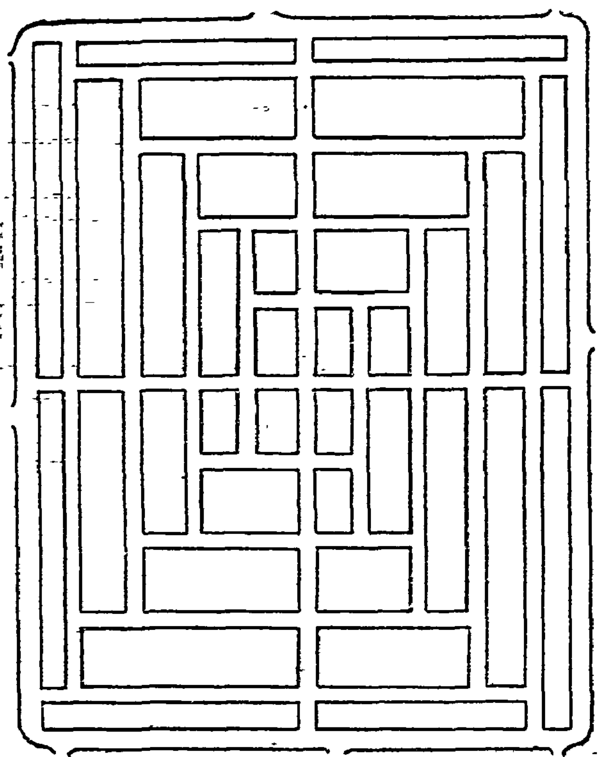
TOWN PLANS



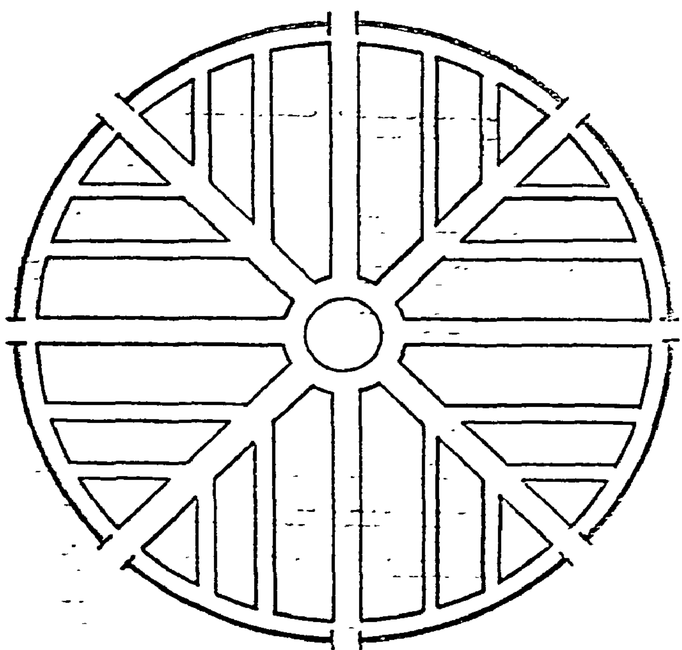
Daṇḍaka



Sarvatobhadra

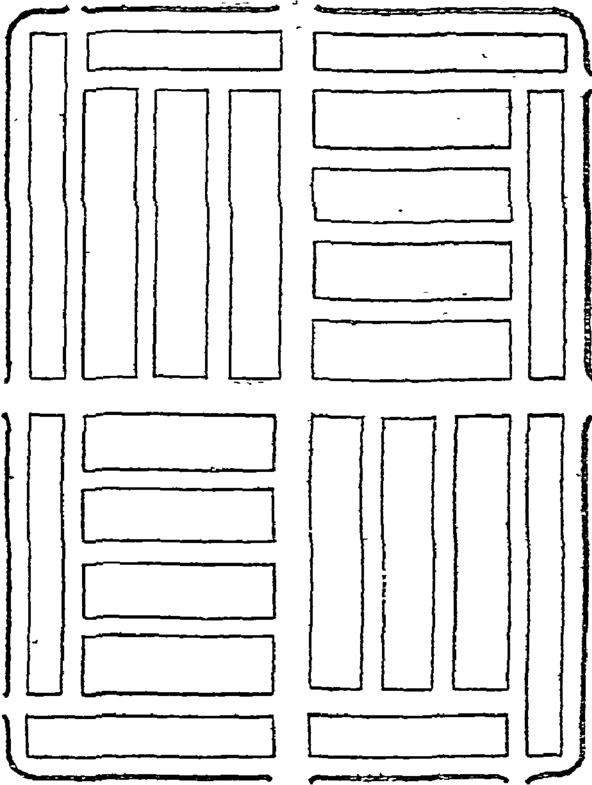


Nandyāvarta (caturaśra)

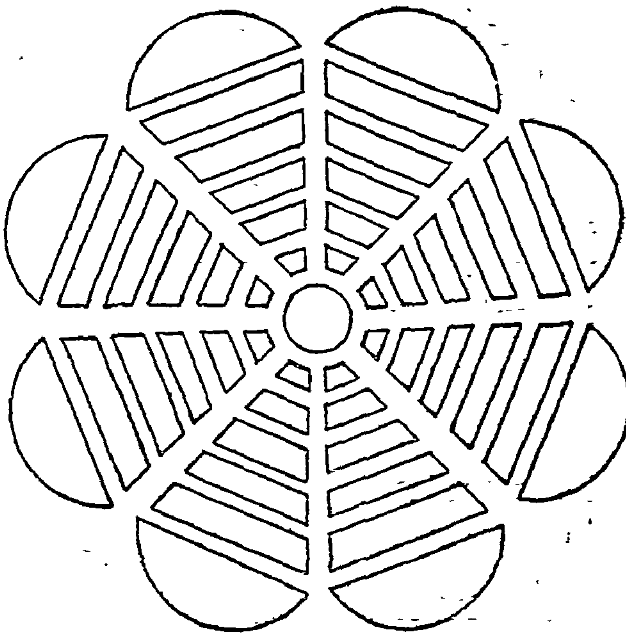


Nandayāvarta (vartula)

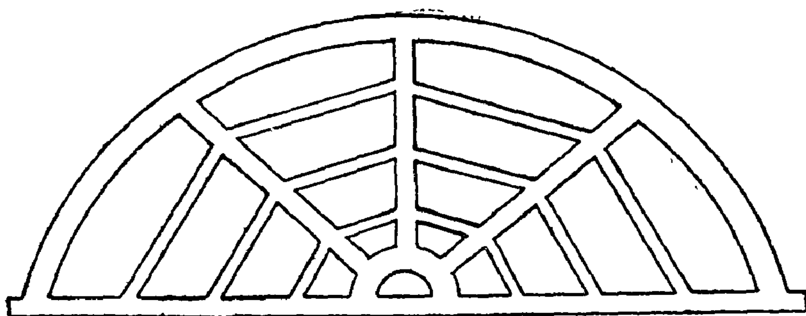




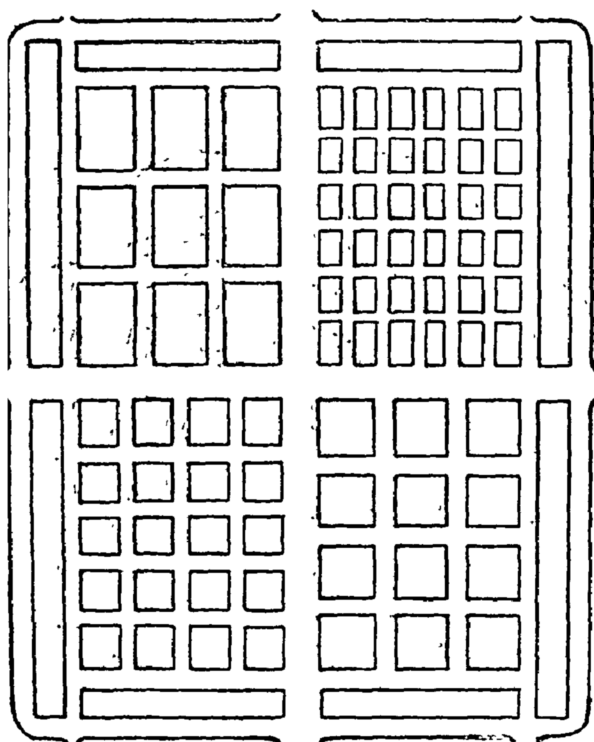
Svastika



Padmaka



Kārmuka



Prastara

BUILDING PLANS

Prastāra : It is through the prastāra that we determine the different locations in a building. How to work out prastāra? (refer to the body of the work page 318). Let us illustrate some specimens :

The Prastāra of 4 Gurūs :

1. s s s s	9. s s s l
2. l s s s	10. l s s l
3. s l s s	11. s l s l
4. l l s s	12. l l s l
5. s s l s	13. s s l l
6. l s l s	14. l s l l
7. s l l s	15. s l l l
8. l l l s	16. l l l l

The implication of this prastāra is that out of these 16 houses so worked out from the stand point of the orientation etc. some houses have no alinda at all some only one alinda others two, three and four alindas. Let us illustrate it, in some specific examples of Ekaśāla house, the notation of which in the Rāja Vallabba is 5 gurūs :

Ramya	l l s s s
Śridhara	l l l s s
Vardhamāna	l l l l s
Karāla	l l s s l
Samṛdha	l l l l l

N.B. Similarly so many other specimens can be worked out. Needless to multiply.

The Prastāra of 8 Gurūs:

(Giving rise to 256 rūpas vide Catuśśala Houses)

1. s s s s s s s s
2. l s s s s s s s
3. s l s s s s s s
4. l l s s s s s s
5. s s l s s s s s
6. l s l s s s s s
7. s l l s s s s s
8. l l l s s s s s
9. s s s l s s s s
10. l s s l s s s s
11. s l s l s s s s
12. l l s l s s s s
13. s s l l s s s s
14. l s l l s s s s
15. s l l l s s s s
16. l l l l s s s s
17. s s s s l s s s
18. l s s s l s s s
19. s l s s l s s s
20. l l s s l s s s
21. s s l s l s s s
22. l s l s l s s s
23. s l l s l s s s
24. l l l s l s s s
25. s s s l l s s s
26. l s s l l s s s
27. s l s l l s s s
28. l l s l l s s s
29. s s l l l s s s
30. l s l l l s s s
31. s l l l l s s s
32. l l l l l s s s
33. s s s s s l s s
34. l s s s s l s s
35. s l s s s l s s
36. l l s s s l s s
37. s s l s s l s s
38. l s l s s l s s
39. s l l s s l s s
40. l l l s s l s s
41. s s s l s l s s
42. l s s l s l s s
43. s l s l s l s s
44. l l s l s l s s
45. s s l l s l s s

N.B. Go on working like this till all become laghus:

256. l l l l l l l l

N.B. (i) As already pointed out that among these 256 rūpas the principal criterion is Bhadra application — vibhadra, ekabhadra, dvibhadra, tribhadra, caturbhadra, pañcabhadra, ṣaḍbhadra, saptabhadra and aṣṭabhadra & accordingly their rūpas being 1, 8, 28, 56, 70, 56, 28, 8 and 1 respectively and totalling 256.

N. B. (ii) As indicated on pp. 318 and 324, the concrete house-plans are not here shown, they are reserved now for the Vol. III. — Glossary and Illustrations.

VĀSTU-LAKṢAṆAM

१—वास्तुशास्त्रोपोद्घातः

२—ग्रामनगरदुर्गादिवास्तु

३—भवनवास्तु

(अ) जन-निवेशे

(ब) राज-निवेशे

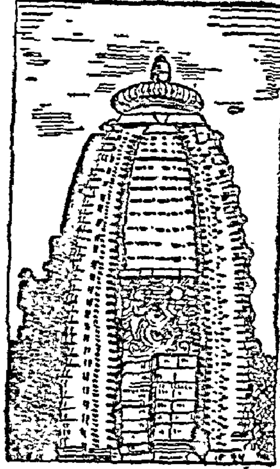
(स) नगर-निवेशे

४—भवनसज्जावास्तु

५—प्रासादवास्तु

वास्तु-शास्त्रम्

वास्तु-लक्षणम्



एम० ए० (संस्कृत)-एम० ए० (फिलासफी)-पीएच० डी०-डी०-लिट-
साहित्याचार्य-साहित्यरत्न-काव्यतीर्थ-प्रोफेसियेन्ट-इन-जर्मन-
प्रभृतिभिर्विद्या-विरुदैर्विभूषितेन

पञ्जाब-विश्वविद्यालये

संस्कृतप्रधानाचार्येण विभागाध्यक्षेण च

श्रीद्विजेन्द्रनाथशुक्लेन

प्राचीन-प्रथित-वास्तुशास्त्रीय-ग्रन्थेभ्यः संकलय्य वैज्ञानिकरीत्या
कलात्मकप्रबन्धबन्धनिबन्धनेन च सम्पादितम्

प्रकाशक:
वास्तु-वाङ्मय-प्रकाशन-शाला
शुक्ल-कुटी, फैजाबाद रोड,
लखनऊ

भारतीय-वास्तु-शास्त्रमधिकृत्य संयोजितानुसन्धान-ग्रन्थेषु प्रकाशितानां सूची—

१ —	भारतीय वास्तु-शास्त्र	वास्तु-विद्या एवं पुर-निवेश
२ —	,, ,,	वास्तु-लक्षणम्
३ —	,, ,,	हिन्दू प्रासाद
४ —	,, ,,	प्रतिमा-विज्ञान
५ —	,, ,,	प्रतिमा-लक्षणम्
६ —	,, ,,	चित्र-लक्षणम् or Hindu Canons Painti
७ —	,, ,,	वास्तुकोष (शीघ्रमेव प्रकाश्यते)

८ — Vāstuśāstra Vol. I—Hindu Science of Architecture wi esp. ref. to Bhoja's Samarāṅgaṇa-Sūtradhāra.

९ — Vāstuśāstra Vol. II—Hindh Canons of Iconography and Painting.

१० — Vāstuśāstra Vol. III—Glossary of Vāstuśāstra (including Śilpaśāstra and Citraśāstra) technical words and their representative illustrations (in Press).

टि०—भवननिवेश-प्रासाद-निवेशादि-प्रस्तावित-ग्रन्था अपि शीघ्रमेव प्रकाश्यमाना सन्ति।

मुद्रक:
शुक्ला प्रिंटिंग प्रेस,
नजीराबाद,
लखनऊ

माता-पितृभ्यां समर्पणम्

दिवंगतेभ्यो शुक्लावासेति (शकूराबादेति) प्रथितनाम्नि
ब्राह्मणाधिवासे ग्रामे मुखपृष्ठ-प्रासाद-प्रतिकल्प-रुद्रेश्वरो-
त्तुङ्ग-शिवालयस्य कारकेभ्यः शुक्लोपाह्व-
महादेवप्रसादेभ्यो यशस्विनी-
मातृ-सहितेभ्यो निज-
पितृभ्यः कृतिरियं
समर्प्यते

प्राक्कथनम्

विदितमेव तत्र भवतां यदहं किञ्चित्कालाद् भारतीय-विज्ञानस्य नवीनामेवैकाद्भुतामेवातिजटिलां कठिनाञ्चापि शाखां वास्तुशास्त्रमित्यभिधामधिकृत्यानुसन्धानकर्मणि प्रवृत्तः; तत्रापि प्रथितकीर्तेस्तत्रभवतः धाराधिपस्य भोजराजस्य समरांगण-सूत्रधारमधिकृत्य यः पी-एच० डी०-उपाधि-विषयकः प्रबन्धः प्रस्तुतस्तस्य च यः परमोत्तमः परीक्षकाणां स्तवः (विशेषतश्च कलकत्ता विश्वविद्यालयीय-प्राच्यभारतीयेतिहास-विभागाध्यक्षाणां प्रथितयशसां कला-शास्त्र-पारंगतानां डाक्टर जितेन्द्रनाथबैनर्जी-महोदयानाम्) प्राप्तः; अथ च उत्तर-प्रदेश-राज्येनापि भृशं सम्मानितश्च (प्रकाशनसाहाय्य-दानेन पारितोषिकेण च); अथ शिल्प-शास्त्रं चित्र-शास्त्रञ्चाधिकृत्य "फाउन्डेशंस एण्ड कैनन्स आफ हिन्दू आइकोनोग्राफी बोथ स्कल्पचरल एण्ड पिक्टोरियल" त्यमुं विषयमंगीकृत्य यश्च डि० लिट०-विषयकः प्रबन्ध उद्भावितस्तस्यापि कीर्ति-श्रुत्रं महामहोपाध्यायानां वासुदेवविष्णुमिराशीमहोदयानामन्येषाञ्चापि विद्वद्वरेण्यानां ततोऽपि वरिष्ठः कश्चन अप्रत्याशितसंस्तवस्समधिगतः तेन सर्वेणोत्साहितोऽहं भारतीयवास्तुशास्त्रेति सामान्यविषयमुपजीव्य चतुर्दशग्रन्थानामेकां प्रकाशन-योजनां कल्पितवानस्मि। तस्यां ग्रन्थोऽयं प्रकाशने षष्ठः विषयक्रमे च द्वितीय आकलनीयः। सोऽथ विदुषां समक्षे समुपस्थाप्यते महता प्रश्रयेण हर्षनिर्भरेण च।

सुरसरस्वतिप्रणयिनां नैतत्तिरोहितं यत्प्रतिमा-लक्षण-संग्रहे कश्चनापूर्वः पूर्वोऽपि प्रयास अभूत् परं वास्तु-लक्षण-संग्रहणे चित्रलक्षणोपमः त्वपूर्वोयं प्रयासः सर्वप्रथमः मामकीन एवात्र गुरूणां शुभाशिष एव कारणम्। एतेन मन्ये कला-शास्त्र-विषयकमेकं नवीनमाधुनिकपाश्चात्य-रीत्या वैज्ञानिकपद्धतिपुरस्सरकलाप्रबन्धबन्धनिबन्धनेन प्रस्थानं समुन्मिषितम्। संस्कृते कला-विषयकाणि प्राधान्येन त्रीण्येव शास्त्राणि वास्तु-शास्त्रं, शिल्पशास्त्रं चित्रशास्त्रञ्च सन्ति; यानि वास्तुशास्त्रमिति स्थापत्य-शास्त्रमिति वेति नाम्ना प्रथयन्ते। मानसार-मयमत-शिल्परत्नादिषु द्राविडेषु विश्वकर्म-वास्तु-शास्त्र-समरांगणसूत्रधार-वास्तु-शास्त्रापराजितपृच्छादिषु नागरेषु च वास्तु-शास्त्रीयग्रन्थेष्वयमेव विलासः। यद्यप्यासीदेकः कालः यदास्माकं देशे चतुष्षष्ठिकलानामेकः प्रौढः सम्प्रदायःप्रभूततमश्च प्रोल्लासः जागर्तिस्म। वात्स्यायनकामशास्त्रस्यायमुन्मेषः लब्धप्रतिष्ठस्य तत्रभवतः यशोधरस्यापीयं मनीषा। शुक्राचार्यस्यापीदमेव समर्थनम्। तथापि कालक्रमेण परि-वर्तमानायामस्माकं संस्कृतौ इमान्येव शास्त्राणि प्राधान्येनाचार्यैः प्रतिपादितानि शास्त्रप्रबन्धैश्च दृढीकृतानि।

अस्माकमेतन्महत्गौरवं सौभाग्यञ्चापि यदहं पारिभाषिके वैज्ञानिके चास्मिन् विषये अनुसन्धानार्थी प्रवृत्तः। शास्त्रमिदमतिकठिनम्। न कुत्रापि प्राचीनानि प्रस्थानानि न कोपि-प्राचीनः वास्तुकोषः न कापि परम्परागता सरणिः। शापदुर्विदग्धानां विश्वकर्मीयाणां घोरा गतिरेवात्र किं निदानं यद्वास्तुवैदुष्यं विलुप्तम्। तथाप्यग्रगामिनां रामराजप्रसन्नकुमाराचार्यद्वय-वास्तु-शास्त्र-संशोधकानां यः पूर्वः पन्थाः प्रवर्तितस्तेनास्माकं सोत्साहमत्र विषये प्रवृत्तिर्बभूव। समरांगणसूत्रधार-वास्तु-शास्त्रस्याध्ययनेन प्रथमंग्रन्थस्यैकगरिमानं पुनश्चास्य शास्त्रस्य प्रायः समेषामेव ग्रन्थानां महिमानं पुराणागमतन्त्र-प्रतिष्टापद्धतीनां नानाग्रन्थानां प्रथिमानं च दर्शं दर्शं उदरं-भरिः ब्राह्मण इव अशेषशास्त्रालोडनकृतमतिःवास्तुशास्त्रानुसन्धाने प्रवृत्त अभवम्। तदधिकृत्याहं ब्रवीमि—

"अप्रज्ञेयं दुरालोकं गूढार्थं बहुविस्तरम् प्रज्ञापोतं समारुह्य प्राज्ञो वास्तुनिधिं तरेत्।" इति समरांगणवचनानुसारेण प्रज्ञापोतं विनैव भगवत्याः सर्वमंगलायाः कृपाकणेनैव किमपि कर्तुं पारये। वास्तु-लक्षणमिदमेकं स्वतन्त्रमेव कला-शास्त्र-पुस्तकं सम्पन्नम्। अस्य संकलनायां ये नवोन्मेषाः निर्दिष्टाः यः नवीन एव एकः प्रबन्धः उद्भावितः या चाभिनवैवैका सरणिरासा-दिता तेन सर्वेणेदं कथयितुं प्रभुः ग्रन्थोऽयं शास्त्रस्यास्य विज्ञानां जिज्ञासूनाञ्च छात्राणां समेषामेव प्रमोदं वितरिष्यते उपकारञ्चापि करिष्यते। तेन धन्यो मे परिश्रमो भविष्यति।

एतस्मिन्नवसरेऽनुसन्धान-ग्रन्थ-प्रकाशनसाहाय्यदानवतां तत्र उत्तर-प्रदेशराज्यस्य केन्द्रीय राज्यस्याचिरप्रतिश्रुतेश्चाथ केन्द्रीय-यूनिवर्सिटी-ग्रान्ट्सकमीशनेऽत्यभिधेयस्यायोगस्य मुहुर्मुहुर्यशो-गानं गीयते आशास्यते च तेषां संरक्षकत्वं चिरं यथा स्यात्तथोपलब्धं भविष्यतीति दिक्।

शुक्लोपाह्व-द्विजेन्द्रनाथस्य

विषयानुक्रमणी

विषयाः	पृष्ठाः
तोरणस्य तद्विशेषाणाञ्च ,,	,,
सिंहकर्णस्य ,,	,
संयमनाख्यस्य ,,	,
मरालपालीप्रणालीप्रद्वाराणां ,,	,
प्राकारस्य ,,	,
आस्थलकाख्यस्य ,,	,
अमेध्यभूमेः ,,	,
अवस्करस्य ,,	,
परिसरस्य ,,	,
अट्टाभिधस्य ,,	,
अट्टालकस्य ,,	,
अट्टाल्याः ,,	,
अट्टालिकायाः ,,	,
काष्ठप्रणाल्याः ,,	,
धारागृहस्य ,,	,
दर्पणगृहस्य ,,	१५६
पक्षद्वारस्य ,,	,
गोपुरद्वारस्य ,,	,
उपकार्यायाः ,,	,
क्षौमाख्यस्य ,,	,
पुरीसंवरणस्य ,,	,
उपनिष्कलस्य ,,	,
उद्यानस्य ,,	,
जलोद्यानजलवेश्मनोः ,,	,
क्रीडागारस्य ,,	,
विहारभूमेः ,,	,
चैत्यस्य ,,	,
सभायाः ,,	,
गोष्टस्य ,,	,
गृह-भेदाः	
गृहोत्पत्तिर्व्याख्या च	१५६-१५७
द्वारभेदैः गृह-भेदाः	१५७
तेषां षट्छन्दांसि	,,
हर्म्य-व्याख्या	,,
शाले-भवन-प्रभेदाः (स०सू०)	,,
एकशालादिदशशालान्तशाल-	,,

विषयाः	पृष्ठाः
भवनानां लक्षणम्	
एकशालस्य उत्पत्तिप्रसरः	१५७
प्रथमः प्रकारः	,,
अलिन्दसंयोगादन्यः	१५७-१५८
द्वितीयः प्रकारः	,,
तृतीयः प्रकारः	१५६
चतुर्थः प्रकारः	,,
पञ्चमः प्रकारः	,,
षष्ठः प्रकारः	,,
अन्तिमश्च विशिष्टः प्रकारः	१५६-१६०
द्विशालस्य मुख्यभेदाः षट्	१६०
भेदोपभेदाश्च	,,
त्रिशालस्य मुख्यभेदाः चत्वारः	१६१
भेदोपभेदाश्च	,,
चतुश्शालस्य विप्रादिविषये मानविकल्पाः	१६२
तेषु शालालिन्द-प्रमाणम्	,,
तेषु मूषावकोसिमयोः स्वरूपं फलञ्च	१६२-१६३
मूषाभेदेन तेषां भेदप्रभेदाः	१६३—१६५
गृह-विशेष-मूषास्थितः	१६५
तृतीय पटलः	
निर्माणीयेषु अन्येषु च	
जन-निवेशे प्रमुख-गृह-निवेशाः	
टि०–आवास-गृहेषु मुख्याष्टकं—स्नानगृहम्, अलंकरणगृहं, द्रव्यस्थापनगृहं, पचन-गृहं, पूजागृहं, भोजनगृहं, शयनगृहं; धनगृह-ञ्चेति।	
तत्र केषाञ्चिल्लक्षणं यथा—	
भोजनशालायाः	१६६
शय्यागृहस्य	१६७
भवन-रचनाङ्गेषु—	
द्वारम्	१६७-१६८
द्वारशाखाः	१६८
द्वारशोभा	,,
तोरणम्	,,
स्तम्भाः	१६९
छाद्यम्	,,

प्रथमः खण्डः

प्रथमः पटलः

(औपोद्घातिकम्)

वास्तुलक्षणम्

१. वि० वा० (अ) ७. १.; ७. ६१

देवतानां नराणाञ्च गजगोवाजिनामपि ।
निवासभूमिश्शिल्पज्ञै— र्वास्तुसंज्ञमुदीरितम् ॥
इष्टिका च शिला दारुणः कीलादयो ऽप्यमी ।
वास्तुकर्मणि चान्यत्र वास्तुसंज्ञमुदीरितम् ॥

(ब) २. ३२-३६½

अतो लोकेषु सर्वेषु शिल्पं बहुविधं ततम् ।
ग्रामाणां च पुरीणां च लक्षणं बहुधा स्मृतम् ॥ १ ॥
खेटकर्वटकादीनां दुर्गाणामपि लक्षणम् ।
प्रासादेषु च हर्म्येषु देवानां भूभुजामपि ॥
विविधेष्वपि निर्माणेष्वपि सन्दूष्यकं बहु ।
भवने न्यायशालायां सभायां कोशसद्मनि ॥
अन्तःपुरे शस्त्रगेहे शालासु विविधासु च ।
क्रीडागेहेषु रम्येषु तोरणादिषु मञ्जिके ॥
अधिष्ठानोपपीठेषु गोपुरेषु तथा बहु ।
सङ्कीर्णभवनाद्येषु पताकापारिभद्रके ॥
चातुर्वर्ण्यगृहाणां च लक्षणं बहुधा स्मृतम् ।
वेदिकापोतिकासन्धिबन्धनावरणेषु च ॥
स्तम्भादिके च निर्माणे विशेषभवनेषु च ।
मण्डपेषु विमानेषु प्राकारादिषु यन्मतम् ॥
लक्षणं बहुधा प्रोक्तं नानादेशविभागशः ।

२. स० सू० १. ४-५

देशः पुरं निवासश्च सभा वेश्मासनानि च ।
यद्यदीदृशमन्यच्च तत्तच्छ्रेयस्करं मतम् ॥
वास्तुशास्त्रादृते तस्य न स्याल्लक्षणनिश्चयः ।
तस्माल्लोकस्य कृपया शास्त्रमेतदुदीर्यते ॥

३. टि० अपराजित-पृच्छायां (सू० ५३, ५४) कोऽपि अद्भुत एव वास्तु-लक्षण-विलासः

४. मा० तैत(ति)लाश्च नराश्चैव यस्मिन्यस्मिन् परिस्थि(ष्ठि)ताः ।
३. १-६ तद्वस्तु सु(सू)रिभिः प्रोक्तां(क्तं) तथा वै वक्ष्यतेऽधुना ॥
धरा हर्म्यादि यानं च पर्यङ्कादि चतुर्विधम् ।
धरा प्रधानवस्तु स्यात्तत्तज्जातिषु सर्वशः ॥
विमानादीनि वास्तूनि वस्तुतं(तो) वस्तुसंश्रयात् ।
तान्येव वस्तुरे (चै)वेति कथितं वस्तुविद्बुधैः ॥
प्रासादमण्डपं चैव सभाशालाप्रपां(पास्)तथा ।
(अ)रङ्गमिति चैतानि हर्म्यमुक्तं पुरातनैः ॥
आदिकं स्यन्दनं शिल्पि(न्)शिबिका च रथं तथा ।
सर्वैर्(सर्व) यानमिति ख्यातं शयनं वक्ष्यते तथा ॥
पञ्ज(ञ्ज) रं मञ्चली मञ्चं काकाष्ठं फलकासनम् ।
तथैव वालपर्यङ्कं पर्यङ्कमिति कथ्यते ॥

५. मय० अमर्त्याश्चैव मर्त्याश्च यत्र यत्र वसन्ति हि ।
२. १-३ तद् वस्त्विति मतं तज्ज्ञैस्तद्भेदं च वदाम्यहम् ॥
भूमिप्रासादयानानि शयनं च चतुर्विधम् ।
भूरेव मुख्यवस्तु स्यात् तत्र जातानि यानि हि ॥
प्रासादादीनि वास्तूनि वास्तुत्वाद् वस्तुसंश्रयात् ।
वस्तून्येव हि तान्येव प्रोक्तान्यस्मिन् पुरातनैः ॥

वास्तु-शास्त्र-जन्म

१. वि० वा० सा परा शक्तिरेवैषा शूलिनः केन वर्ण्यते ॥
२. २८-३२ या तता त्रिषु लोकेषु तैलबिन्दुरिवाम्भसि ।
यत्प्रसादान्मया ज्ञातं वास्तुशास्त्रमिदं ततम् ॥
शास्त्रेणानेन सर्वस्य लोकस्य परमं सुखम् ।
चतुर्वर्गफलप्राप्तिस्सल्लोकश्च भवेद्ध्रुवम् ॥
शिल्पशास्त्रपरिज्ञानान्मर्त्योऽपि सुरतां व्रजेत् ।
परमानन्दजनकं देवानामिदमीरितम् ॥
शिल्पं विना न हि जगत्त्रिषु लोकेषु विद्यते ।
जगद्विना न शिल्पं च वर्तते वासव ! प्रभो ! ॥

२. स० सू० तानुवाच मुनिर्वत्सा ! विदितं वो यथा पुरा ।
(अ) २. ४-१४ वास्तु ब्रह्मा ससर्जादौ विश्वमप्यखिलं तथा ॥
धर्म्यं कर्म तदा श्रैष्ठ्यप्राप्त्यै लोका वनानि च ।
व्यवस्थाप्य चकारैष लोकपालस्य कल्पनाम् ॥
अहमप्यमुना विश्वनाथेनाम्बुजजन्मना ।
लोकानां सन्निवासार्थमादिष्टोस्मि स्वयम्भुवा ॥

रम्याणि नगरोद्यानसभास्थानान्यथो मया ।
सुरासुरोरगादीनां निर्मितान्यात्मबुद्धितः ॥
गत्वोर्वीं वैन्यनृपतेर्वत्साः ! प्रियचिकीर्षया ।
नगरग्रामखेटादीन् करिष्यामि पृथक् पृथक् ॥
कार्ये त्वमुष्मिन् सकले मम विश्वसृजार्पिते ।
सम्यक्साहायकैर्भाव्यं भवद्भिरिति नः स्थितम् ।
यतस्त्रिभुवनालोकप्रद्योतस्याब्जिनीपतेः ।
सहायतां तमश्छेदे कलयन्ति मरीचयः ॥
स्वयं करिष्येऽहमतो निवासाय पृथोः पुरीम् ।
विचित्रनगरग्रामखेटामतिमनोहराम् ॥
भवन्तः पुनरागत्य चत्वारोऽपि चतुर्दिशम् ।
तांस्तान् निवेशान् कुर्वन्तु पृथग्जनकृताश्रयान् ॥
अन्तरेष्वध्वपाथोधिशैलानां सरितां तथा ।
विधातव्यानि दुर्गाणि नृपाणां भयशान्तये ॥
वर्णप्रकृतिवेश्मानि संस्थानानि च लक्ष्मभिः ।
विधेयानि प्रतिग्रामं प्रतिपूः प्रतिपत्तनम् ॥

(ब) १.१६-२३½ पृथुनेत्यथ विज्ञप्तो भगवानब्जसम्भवः ॥
उवाच बोधयन्नेनं कृत्वा भूमिं च निर्भयाम् ।
इयं मही महीपाल ! विधिवत् पालिता सती ॥
सस्यैरुपा (द्यै?य) निष्पन्नैस्तव भोग्या भविष्यति ।
यच्च ते स्यादभिप्रेतं स्थानादिविनिवेशनम् ॥
तदेष त्रिदशाचार्यः सर्वसिद्धिप्रवर्तकः ।
सुतः प्रभासस्य विभोः स्वस्रीयश्च बृहस्पतेः ॥
विश्वातिशायिधीः सर्वं विश्वकर्मा करिष्यति ।
राजन्नसौ महेन्द्रस्य विदधावमरावतीम् ।
अन्या अप्यमुना रम्याः पुर्यो लोकभृतां कृताः ।
त्वया चैत्रीकृतां मूर्तिं दृष्ट्वा साद्रिद्रुमामसौ ॥
सन्निवेशान् पुरग्रामनगराणां विधास्यति ।
तद्गच्छ वत्स ! लोकानामितस्त्वं हितकाम्यया ॥
भयोज्झिता त्वमप्युर्वि ! पृथोः प्रियकरी भव ।
काले स्मृतः स्मृतः पुण्यो राज्ञः प्रियचिकीर्षया ॥
त्वमप्यखिलमेवैतद् विश्वकर्म (न्) ! करिष्यसि ॥

२. अ० पु० ३४. २-२० ततो हिमवतः पृष्ठे ब्रह्मलोकात्समागतौ ।
शृङ्गाकुले वनाकीर्णे हिमवन्तश्रियोद्भवे ॥
नैकगुहाश्रमरम्ये गन्धर्वगणसेविते ।

सिद्धानन्दकुलाकीर्णे क्रीडासक्तिगुहागृहे ॥
जयः पृच्छति तत्रैवं वास्तुविद्योद्भवं तदा ।
तदिदं कथनीयं च शृणु सर्वाद्भुतं मतम् ॥
चतुर्विंशतिसाहस्रलक्ष्यो ग्रन्थस्तदा कृतः ।
लिङ्गपीठार्चानिलयवेश्मप्रासादरत्नादिकम् ॥
भूम्याकाशपरिज्ञानमर्त्यलोकमार्गणोद्भवम् ।
अन्योपस्करजातानि वास्तुवेदोद्भवानि च ॥
जयोऽपृच्छदिदं शास्त्रं विश्वकर्मसमाश्रितम् ।
जयस्य कथितं चैतद् भक्तिवात्सल्यतः पुरा ॥
हेमकूटे महाशैले शतयोजनमुच्छ्रिते ।
विश्वाख्याकृते रम्ये विचित्रचित्रसद्भवे ॥
नानाद्रुमलताकीर्णे रत्नधातुप्रकाशिते ।
सुरविद्याधराद्ये गन्धर्वगणसेविते ॥
विजयेन ततः पृष्टो वत्साहं भक्तवत्सलः ।
श्लोका विजयपृच्छायां सहस्राणि च द्वादश ॥
ततो वेदपुराणादिवादिद्वैर्विविधैस्तथा ।
सांख्यहास्यपाञ्चरात्रधर्मशास्त्रसमुद्भवाः ॥
सप्तस्वरास्त्रयो ग्रामा मूर्छनास्त्वेकविंशतिः ।
तानाः एकोनपञ्चाशदित्येतत्स्वरमण्डलम् ॥
रागाश्च षट् समुत्पन्नाः षट्त्रिंशच्चैव तत्स्त्रियः ।
एतत्सर्वं विजयस्य कथितं मत्प्राणिवत् ॥
मन्दरस्थं सुखासीनं सिद्धार्थः पृष्टवान् पुरा ।
षाड्गुण्यस्वरशास्त्रं गणितं ज्योतिषं तथा ॥
निरुक्तं च व्याकरणं छन्दोऽलङ्कारसंयुतम् ।
मनुजाद्यस्सुरद्भूतं संसारपाशच्छेदनम् ॥
मुक्तिमार्गरहस्यं च कथितं भक्तवत्सलैः ।
तुर्योऽयं मानसः पुत्रः पृच्छति त्वपराजितः ॥

अपराजित उवाच—

अस्मिंश्चिते सर्वोत्कृष्टं जयार्थं पृच्छते च यद् ।
विजयस्य सिद्धार्थस्य पृच्छायां यच्चैतयोः ॥
भवान् पुण्यवांश्च मोक्षवान् यत्प्रसादतः ।
एवं सर्वं प्रसादेन कथयस्व जगत्पते ॥
पुण्यं तु ममाख्य मोक्षमार्गप्रकाशनम् ।
स्वालोक्तिं तथा चैवा समुद्रान्ता च मेदिनी ॥

वास्तु-शास्त्राचार्याः

(i) पौराणिकाः भृगुरत्रिर्वशिष्ठश्च विश्वकर्मा मयस्तथा।
नारदो नग्नजिच्चैव विशालाक्षः पुरन्दरः॥
म० पु० ब्रह्मा कुमारो नन्दीशः शौनको गर्ग एव च।
अ० २५२ वासुदेवोऽनिरुद्धश्च तथा शुक्रबृहस्पती॥
अष्टादशैते विख्याताः शिल्पशास्त्रोपदेशकाः॥

(ii) तान्त्रिकाश्च

आगमापरनामानि तन्त्राणि शैव-शाक्त-वैष्णव-भेदानि त्रेधा भिद्यन्ते। शैवागमाः कापाल-कालमुख-पाशुपत-शैव-भेदेन चतुर्धा भवन्ति। तत्रापि चरमे काश्मीरशैवसिद्धान्तभेदेन द्विधा भिद्यन्ते।

शाक्तागमाः दक्षिणाचार-वामाचार-भेदेन द्विविधा भवन्ति। दक्षिणाचारः प्रायो वैदिक-मार्गानुसारी। वामाचारस्तु वैदिकमार्गपरिभ्रष्ट इति वदन्ति।

वैष्णवागमाश्च वैखानस-पञ्चरात्रभेदेन द्विविधा भवन्ति। उभयेऽपीमे विष्णुपारम्यं विष्णुपूजादिकं च प्राधान्येन प्रतिपादयन्ति।

वैखानस-पञ्चरात्रयोस्तारतम्यम् वैखानसप्रक्रियायां वैखानस-सूत्रिणां द्विजानामेवाधि-कारः। भगवान् वैखानसो हि आपस्तम्ब-बोधायनादिवत् यजुः-शाखानुसारी श्रौत-गृह्य-धर्म-सूत्राणां रचयिता। तदीयसूत्रेषु भगवतो नारायणस्य पूजां संग्रहेण प्रतिपादितामवलम्ब्य भृगुमरीच्यादयो महर्षयो विस्तरेण भगवत्पूजां प्रतिपादयिषवो विविधनामग्रन्थानरचयन् ते च भृगुसंहिता, मरीचिपटलः, आनन्दसंहितेत्यादिनाम्ना प्रथन्ते।

पाञ्चरात्रप्रक्रियायान्तु स्वार्थे गृहार्चायजने सर्वेषामधिकारः। परार्थे देवालययजने तु ये किल प्रसिद्धेषु देवालयेषु वंशपरम्परया दीक्षाविशेषपुरःसरं समाराधनेऽधिकृताः, तद्वंशजानामेव मुख्योऽधिकारः, अन्येषां तु गौणोऽधिकार इति संप्रदायः।

पाञ्चरात्रसंहितासंख्यापरिगणनम् एतच्छास्त्रसंबन्धिनः संहिताभेदाश्च पाद्ममार्कण्डेयकपि-ञ्जलभारद्वाजहयशीर्षसंहिताविष्णुतन्त्रादिषु बहुधा नामतो निर्दिश्यन्ते। ततः संगृह्य तन्नामानि तत्रभवता पण्डित श्री कृष्णमाचार्येण लक्ष्मीतन्त्रोपोद्घाते प्रस्तुतानि तत्रैव विभाव्यानीति दिक्।

वास्तुशास्त्रस्य विस्तारः विषयाश्च

(अ) विस्तारः— भारतीय-वास्तुशास्त्र-नामके लेखकस्य हिन्दी-ग्रन्थे अवलकोनीयः—

अ—स्वातन्त्रिकः ब—सार्वभौमिकः दार्शनिको वा स—भौगोलिकः
य—खगोलीयः र—भौगर्भिकश्च पत्रांक—२३४-२४२

(ब) विषयाः

(i) विज्ञानात्मकाः

१. स० सू० अथ तेषु जयो नाम वाक्यं तद् विश्वकर्मणः।
३. १-६० श्रुत्वा कृताञ्जलिः प्राह स्निग्धगम्भीरया गिरा॥

ज्ञानैकनिधिरप्यस्मान् यद् सहायतया किल।
वृणोषि तेन न वयमात्मानं बहु मन्महे॥
तदिदानीं हितार्थे नः प्रजानामपि च प्रभो!
अप्रमेयप्रभावस्त्वं सर्वमाख्यातुमर्हसि॥
पूर्वमेकार्णवे जाते जगति प्रलयं गते।
महाभूतामरपुरीज्योतिषां कथमुद्भवः?
किमाकारा किमाधारा किंप्रमाणा च मेदिनी?
विस्तृतिः परिधिश्चास्या बाहुल्यमपि कीदृशम्?
उच्छ्रायव्यासदीर्घत्वैः कैः केऽस्यां कुलभूभृतः।
कति ख्यातानि वर्षाणि द्वीपा नद्योऽब्धयस्तथा॥
काः सूर्येन्दुग्रहर्क्षादिगतयश्च पृथक् पृथक्।
भूमेरुपरि किं चैषामन्योन्यं प्रोक्तमन्तरम्?
किमाधारं दिवि ज्योतिश्चक्रं भ्रमयते च कः?
लोके कथं महाभूतान्यूर्ध्वाधो बिभ्रति स्थितिम्?
युगधर्मव्यवस्थाभिः काश्चादौ लोकवृत्तयः?
कश्चादिमस्ततो राज्ञां प्रहाणां वर्णिनां कथम्?
कति देशाः कति भुवः पृथक्त्वेन निरूपिताः?
कार्यः क्व च कथं सन्निवेशो जनपदाश्रयः॥
व्यक्तचिह्नैः स्वनस्पर्शगन्धवर्णरसादिभिः?
काः शस्ता निन्दिताः काश्च पुराणामपि भूमयः?
कार्यं केन विधानेन भूभृत्पुरनिवेशनम्।
किं फलं सुनिविष्टेऽस्मिन् दुर्निविष्टे च किं पुनः?
कति प्रकारं दुर्गं च दुर्गकर्मक्रमश्च कः?
किमग्रपुरसंस्थानमनिन्द्यं किं च निन्दितम्।
कश्चात्रानुक्रमविधिः प्रमाणैरुपपादितः?
प्राकारगोपुराट्टालपरिखावप्रकर्म च
तमङ्गनिर्गमद्वारप्रतोल्यट्टालकादिभिः।
कीदृशः प्रविभागश्च रथ्याचत्वरवर्त्मभिः॥
भूमिप्रमाणसंस्थानं सीमा च क्षेत्रदिक्पथैः।
नगरग्रामखेटानां निवेशाः स्युः पृथक् पृथक्?
पुरस्याभ्यन्तरे पूर्वं कैर्द्रव्यावयवक्रमैः।
कस्मिन् स्थाने कथं कार्यं शक्रध्वजनिवेशनम्?
प्रतिसंवत्सरं तस्य नियुक्तस्य कथं पुनः।
हिताय नृपलोकानां विधातव्यो महोत्सवः?
गृहेषु केषु केष्वत्र कासु कासु ककुप्सु च।

भागैर्बाह्यान्तरैः कैः कैः कार्याः काः काश्च देवताः ?
कैः कैर्यानपरीवारवर्णरूपविभूषणैः।
कार्याः कैः कैः सुरा वस्त्रवयोवेषायुधध्वजैः॥
प्रमाणमितिसंस्थानसंख्यानोच्छ्रयलक्ष्मभिः।
प्रासादाः कस्य के वा स्युः सुरराजद्विजातिषु ?
प्राकारपरिखागुप्तं पुरे स्याद् गोपुरं क्व च।
युग्ममध्याम्बुवेश्मानि क्व च स्युः क्व महानसम् ?
कोषागारायुधस्थानभाण्डागारनिवेशनैः।
व्यायामनृत्तसंगीतस्नानधारागृहादिभिः॥
शय्यावासगृहप्रेक्षावेश्मादर्शगृहैः पृथक्।
क्रीडादोलालयारिष्टगृहान्तःपुरवेश्मभिः॥
विटङ्कभ्रमनिर्यूहकक्षासंयमनादिभिः।
अशोकवनिकाभिश्च लतामण्डपवेश्मभिः॥
वापीभिर्दारुगिरिभिश्चित्राभिः पुष्पवीथिभिः।
एतैर्विशेषैरन्यैश्च विचित्रैर्विपिनाश्रयैः॥
मानोन्मानक्रियायामद्रव्याकृतिविनिर्मितः।
निकेतननिवेशः स्याद् राज्ञां भागाश्रितः कथम् ?
पुरोधःसैन्यभूश्रेष्ठदैवचिन्तकमन्त्रिणाम्।
कं कं च भागं प्राप्य स्युर्निवेशा नृपवेश्मनः ?
पुरे स्युर्दिक्षु भागेषु पदभागेषु केषु च।
विप्रराजन्यविट्शूद्रास्तज्जैरन्तरजैः समम् ?
तथा कृषितुलाशिल्पकलापण्योपजीविनः।
हिंसाश्रिताश्च पुरुषा निवेश्याः स्युः कथं क्व च ?
निवेशाः कीदृशाश्चैषां कियन्तो वा भवन्ति ते ?
शस्यन्ते केन वा केषां कैः प्रवेशजलभ्रमैः ?
धिष्ण्यमाद्यं कतिविधं द्रव्याण्याद्यानि कानि वा ?
हेतुरेषां च सर्वेषां स्याच्च कीदृगनुक्रमः ?
भजन्ते योगमन्योन्यं कानि द्रव्याणि कैः सह ?
कानि योगं न गच्छन्ति कैर्वा कः क्व वसेत् पुमान् ?
इष्टिकाकर्म किं चेष्टं कीर्तिता कतिधा च भूः ?
परिकर्मक्रमस्तासां वह्न्यम्बुपवनैश्च कः ?
गुरुवर्णिध्वजोर्वीशतद्भृत्यप्रतिमा (:?) पुराम्।
वृक्षाः के के प्रशस्ताः स्युर्गृहार्थे के च गर्हिताः ?
तच्छेदस्रावसंभूतं शब्ददिक्पातगर्भजम्।
विज्ञायते कथं कर्तृकारकादिशुभाशुभम् ?

प्रमाणं तक्षणच्छेदैः शोधितानां कथं भवेत्?
आहृत्य स्थापनं पूर्वं दारूणां स्थानके क्व च?
सामान्यतोऽखिलानां काः काश्च जातेर्विशेषतः।
प्रशस्तैर्लक्षणैर्युक्ता भूमयः परिकीर्तिताः?
शल्योद्धारविधिः कीदृक् कीदृशं भूमिकर्म च।
दिग्ग्रहः सूत्रणं चाधिवासनं च कथं भवेत्?
प्रमाणं मूलपादस्य शिलान्यासे च को विधिः।
विभज्यते कथं वेश्म शालालिन्दविभाजनैः?
मानानि कानि भित्तीनां पीठानामुच्छ्रयाश्च के।
कथं तानि विकल्प्यानि वर्णानां मेखलादिभिः?
समस्तकानां स्तम्भानां द्वारस्तम्भासनैः सह।
नागवीथ्युपधानानां समं कण्ठविनिर्गमैः॥
जयन्तीसङ्ग्रहतुलाकार्याणां वास्तुनोऽपि च।
कीदृशं फलकानां च प्रमाणं परिकीर्तितम्॥
स्वमानात् सर्ववर्णानां तलोच्छ्रायास्तु कीदृशाः।
का गवाक्षकपोतालिवेदिकाजालकक्रियाः ?
स्थूणा निसृष्टिकोत्सूका मृगा (ल्योःल्यु) पतुलास्तथा।
सान्ताः प्राणिशिरोवंशाः किंप्रमाणाः प्रकीर्तिताः?
छाद्योदयाः कियन्तः स्युर्वृत्तच्छाद्यक्रमश्च कः।
व्यस्ताणां खण्डवृत्तानां लुपानां च क्रियाः कथम्?
सीमालिन्दशिर (स्वा?स्वा) सां कीदृशी चावलम्बना।
कतिप्रकाराः प्रासादशिरसां च विकल्पनाः?
यच्चान्यदेवमादि स्यात् प्रासादभवनादिषु।
द्रव्यकाष्ठकलासञ्ज्ञि प्रमाणं तस्य कीदृशम्?
शालालिन्दप्रमाणानि चतुःशालेषु धामसु।
ज्यायोमध्यकनीयस्सु भूपाभिः काष्ठकल्पना॥
एकद्वित्रिचतुःशालान्येषां संयोगतोपि च।
कथं कति च वेश्मानि कल्प्यन्ते प्रविभागशः?
कथं च षोडशचतुःषष्ट्येकाशीतयः शतम्।
संविभागाः पदानां स्युः कथमत्रामरस्थितिः?
आद्यो नवपदो वास्तुरन्त्यः साहस्रिकः कथम्।
अङ्गप्रत्यङ्गभागेषु केषु केषु क्व तस्थुषः?
कथमेते सुराः सर्वे वास्तोरस्य व्यवस्थिताः।
एतद्वंशशिरश्चक्षुः कुक्षिहृन्मूर्धमर्मसु?
जायेत पीडा द्रव्येषु सन्निविष्टेषु कस्य का।

वास्त्वारम्भप्रवेशेषु, यात्रायां स्थापनेषु च ॥
दूतस्वप्ननिमित्ताद्यैः कथं ज्ञेयं शुभाशुभम् ?
दारुक्रियासु चित्रेषु तथा लेप्यक्रियासु च ?
योज्यं किं किमयोज्यं च किं भूपभवनादिषु ।
हस्तस्य लक्षणं मानसंज्ञा वै जायते कथम् ?
किं हव्येष्वग्निलक्ष्म स्यात् किं च निर्युक्तलक्षणम् ?
अनुक्रमेण वर्णानां वलिकर्म च कीदृशम् ?
विधेयं विधिना केन भवने च प्रवेशनम् ?
पतिते स्फुटिते जीर्णे प्लुष्टे वज्राशनिक्षते ॥
निमग्नभग्ननिर्भिन्नप्रशीर्णेषु च वास्तुषु ।
मधुवल्मीकसंभूतौ प्रविरूढे च दारुणि ॥
जायते किं फलं कुत्र प्रायश्चित्तेन को विधिः ?
इत्येवमादिकमनेकविधं विधानं वेश्मोपगं च पृथगाश्रयसंभृतं च ।
अस्मास्वनल्पकरुणार्द्रितचित्तवृत्तिर्व्याख्यातुमर्हसि समस्तमनुक्रमेण ।

२. अ० पु० २. १–३१

सृष्टिकौतूहलं देव उत्पत्तिर्भूतधातुभिः ।
ब्रह्माण्डं च कथं प्रोक्तं केन संख्याप्रमाणतः ?
कया युक्त्या समुत्पन्नं वर्द्धितं केन हेतुना ।
विकासः केन संजातः कैराधारैश्च धार्यते ?
धरायाः केचिदाधारा आकाशस्य कथं विदुः ।
के च मेर्वादयः शैलाः कैराधारैः कुलाचलाः ?
किं धरित्र्याः प्रमाणं च सप्तद्वीपा वसुन्धरा ?
समुद्राश्च कथं प्रोक्ता वनोपवनकाननम् ?
द्वीपद्वीपेषु क्षेत्राणां प्रमाणानि कथं विदुः ।
जम्बूद्वीपस्य मध्ये तु नव क्षेत्राणि कानि च ?
उत्तमं भारतं क्षेत्रं तत्प्रमाणं च ख्यातु मे ।
स्वेदाण्डोर्ध्वजरायुजो भूतग्रामः कथंचन ?
को धर्मः कुत्र क्षेत्रेषु रम्यकादौ वदेद्भवान् ?
ये देशा भारते क्षेत्रे आश्रमा ग्रामसंख्यया ॥
को धर्मः कुत्र देशे तु भरतक्षेत्रमध्यतः ।
कृतत्रेताद्वापरे तु चतुर्थे वा कलौ युगे ॥
युगान्ते च कथं धर्मो युगरूपानुदेवताः ।
धर्मः कृतयुगादीनां द्विजदेवयज्ञादयः ॥
कश्च धर्मः कथं कीर्तिर्द्विजदेवालयादितः ।
आलयः सर्वसत्त्वानां वेश्महर्म्यप्रसाधनम् ?
वास्तूत्पत्तिः कथं तात देवादेश्च निघण्टुकम् ।

एकपादादिकं वास्तु यावत्पदसहस्रकम् ॥
नर्मोपमर्मवंशाश्च रेखाषट्कसंध्यादिकम् ।
वज्रत्रिशूललाङ्गलं हस्तसूत्रादिपञ्चकम् ॥
बलिकर्मविधिं ब्रूहि वास्तुपादनिवासिनाम् ।
विद्यात् स्थानानि सर्वाणि प्रासादभवनादितः ॥
हस्तलक्षणमानं च देवतापादसंभवम् ।
मानोन्मानप्रमाणं च सर्वकर्मादिकारणम् ॥
सूत्रधारो हि जानीयाद्वर्णकं रुतमेव च ।
भूपरीक्षां शल्योद्धारं कीलिकारोपणादिकम् ॥
वर्णगन्धरसास्वादप्लवादिभूमिलक्षणम् ।
दीपवर्त्तिप्राग्विशुद्धिं दिशां च साधनादिकम् ॥
प्रस्तारक्रमसूत्रं च राजधान्याः पुरादिकम् ।
पुरग्रामनगराद्यं खेटं कूटं च कर्वटम् ॥
पुरप्राकारपरिखाप्रतोलीमार्गगोपुरम् ।
वेश्मानि राजवेश्मानि सभां शालां गजाश्वयोः ॥
सूत्रपातविधिं ज्ञात्वा द्रव्यादेश्चापि लक्षणम् ।
ज्योतिषे केवलं ज्ञानं स्त्रीपुरुषादिलक्षणम् ॥
प्रासादप्रतिमालिङ्गजगतीपीठमण्डपान् ।
प्रासादान् विविधाकारान् वैराज्यकुलसम्भवान् ॥
अष्टजातिक्रमच्छन्दो देशानुरूपसूत्रणे ।
रेखाश्च विविधास्तत्र प्रासादे शिखरे मताः ॥
घण्टाकलशध्वजानां प्रमाणं सृष्टिसम्भवम् ।
प्रतिष्ठा सप्तधा ख्याता कूर्माद्या च ध्वजान्तगा ॥
प्रासादे गर्भद्वारे च देवतानामनुक्रमः ।
द्वारदृष्टिपदस्थानं दिग्द्वारं च कथञ्चन ॥
द्वारलक्षणं प्रोक्तव्यं दारुकर्मण्यारुहे(त्मके) ।
सिंहकर्णकपोतालीनिर्यूहच्छाद्यकं लुमम् ॥
वितानानि विचित्राणि क्षिप्तान्युत्क्षिप्तकानि च ।
पद्मकं नाभिच्छन्दं च सभामार्गं मन्दारकम् ॥
प्रतिमालक्ष्मस्थानानि दृष्टिस्थानादिकं तथा ।
भृत्यचारप्रभेदाश्च स्वस्वयानादिकं तथा ॥
तालप्रस्तारगीताद्यं वादित्रैः स्याच्चतुर्विधम् ।
चित्रपट्टप्रभेदाश्च रेखाचित्रसमुद्भवाः ॥
वर्णरूपरसवृत्तिभावानुभावकोद्भवाः ।
शुद्धाशुद्धानि चित्राणि पत्राणि पत्र एव (?) च ॥

शालभञ्जी प्रतीचारी लास्यताण्डवकादिकम्।
भूषणानि विचित्राणि देवासुरनृणां किल॥
छत्रं सिंहासनं शय्यां यानानि चायुधानि च।
वेदिकानानलङ्कारं रत्नधातूद्भवं तथा॥
एतत्सर्वं प्रसादेन कथय स्वयमीश्वर!
भक्तवत्सल देव त्वं प्रसादं कुरु मे प्रभो॥

३. मा०
१. ३–१६

मानोपकरणं चादौ शिल्प(लिप)लक्षणपूर्वकम्।
अथ वास्तुप्रकरणं भूपरीक्षाविधिं तथा॥
भूसंग्रहस्ततः प्रोक्त शङ्कुस्थापनलक्षणम्।
देवादीनां स्थापनाय पदविन्यासलक्षणम्॥
बलिकर्मविधिं चैव ग्रामादीनां च लक्षणम्।
नगरीलक्षणं चैव भूमिलम्बविधानकम्॥
गर्भन्यासविधिं चैव चोपपीठस्य लक्षणम्।
अधिष्ठानविधिं चैव पादमानस्य लक्षणम्॥
प्रस्तरस्य विधिं चैव लक्षणं सन्धिकर्मणः।
विमानलक्षणं चैवमेकभूम्याश्च लक्षणम्॥
द्वितलस्य विधिं चैव त्रितलस्य विधानकम्।
चतुस्तलविधिं चैव पञ्चभूम्याश्च लक्षणम्॥
षट्सप्ततलकं चैवमष्टभूनवभूमिकम्।
दशभूमिविधानं च रुद्रभूमिविधानकम्॥
तलं द्वादशकं चैव प्राकाराणां च लक्षणम्।
परिखालक्षणं चैव गोपुराणां च लक्षणम्॥
मण्डपस्य विधानं च शालानां चैव लक्षणम्।
विन्यासश्च गृहस्याथ गृहप्रवेशलक्षणम्॥
द्वारस्थानविधिं चैव द्वारमानस्य लक्षणम्।
राजहर्म्यविधिं चैव राज्याङ्गस्य तु लक्षणम्॥
भूपतेर्लक्षणं चैव यानादेरथ लक्षणम्।
शयनस्य लक्षणं चैव सिंहासनलक्षणम्॥
? तोरणं(णस्य)मध्यरङ्गस्य कल्पवृक्षस्य लक्षणम्।
अभिषेकलक्षणं चव सर्वभूषणलक्षणम्॥
ब्रह्मादीनां त्रिमूर्तेश्च लक्षणं लिङ्गलक्षणम्।
पीठस्य लक्षणं चैव शक्तीनां लक्षणं तथा॥
बौद्धस्य जैनिकानां च लक्षणं मुनिलक्षणम्।
यक्षविद्याधरादीनां लक्षणं भक्तलक्षणम्।
ब्रह्मादीनां च देवानां तत्तद्वाहनलक्षणम्।

लक्षणं प्रतिमानां चोत्तमदशतालस्य च ।
स्त्रीमानाय मध्यमस्य दशतालस्य लक्षणम् ।
प्रलम्बलक्षणं चैव मधूच्छिष्टविधानकम् ॥
तथा च लक्ष्यते सर्वसङ्गदोषविधानकम् ।
नयनोन्मीलनं चैव लक्षणं वक्ष्यते क्रमात् ॥

४. मय०
१.२-११

तैतिलानां मनुष्याणां वस्त्वादीनां सुखोदयम् ।
प्राज्ञो मुनिर्मयः कर्ता सर्वेषां वस्तुलक्षणम् ॥
आदौ वस्तुप्रकारं च भूपरीक्षा परिग्रहम् ।
मानोपकरणं चैव शङ्कुस्थापनमार्गकम् ॥
सपदं स्वरविन्यासं बलिकर्मविधिं तथा ।
ग्रामादीनां च विन्यासं लक्षणं नगरादिषु ॥
भूलम्बस्य विधानं च गर्भविन्यासलक्षणम् ।
उपपीठविधिं चैवाधिष्ठानानां तु लक्षणम् ॥
स्तम्भानां लक्षणं चैव प्रस्तरस्य विधिक्रमम् ।
सन्धिकर्मविधानं च शिखराणां तु लक्षणम् ॥
एकभूमिविधानं च द्वितलस्य तु लक्षणम् ।
त्रितलस्य विधानं च चतुर्भूम्यादिलक्षणम् ॥
ससारं परिवाराणां गोपुराणां तु लक्षणम् ।
मण्डपादिविधिं चैव शालानां चैव लक्षणम् ॥
गृहविन्यासमार्गं च गृहवेशनमेव च ।
राजवेश्मविधानं च द्वारविन्यासलक्षणम् ॥
यानानां शयनानां च लक्षणं लिङ्गलक्षणम् ।
पीठस्य लक्षणं सम्यगनुकर्मविधिं तथा ॥
प्रतिमालक्षणं देवदेवीनां मानलक्षणम् ।
चक्षुरुन्मीलनं चैव संक्षिप्याह यथाक्रमम् ॥

५. शिल्प०
१.८-२८

आचार्यलक्षणं पूर्वं मानसाधनलक्षणम् ।
पश्चाद् (भूलक्षणं चैव) भूपरिग्रहमेव च ॥
ग्रामादीनां लक्षणं च पदविन्यासलक्षणम् ।
वास्तुपूजाक्रमं तत्र ग्रामादेर्द्वारलक्षणम् ॥
तत्र देवालयस्थान परं खातविधिक्रमम् ।
शङ्कुना दिक्परिज्ञानं गर्भन्यासस्ततः परम् ॥
वास्तु (कर्म) विधानं च साधनानां च लक्षणम् ।
हर्म्यादिलक्षणं पश्चाद् पश्चात् प्रासादलक्षणम् ॥
पादाधिष्ठाननियममुपपीठस्य लक्षणम् ।
प्रास्तरलक्षणं नाललक्षणं भित्तिलक्षणम् ॥

+ + + भित्तिभूषाः सर्वस्वलक्षणम् (?) ।
द्वाराणां लक्षणं पश्चात् तोरणानां च लक्षणम् ॥
जालस्य लक्षणं कूटगोष्ठादीनां च लक्षणम् ।
पञ्जराचरणं वृत्तस्फुटितस्य तु लक्षणम् ॥
पश्चात् कुम्भलताचारमुत्तराणां च लक्षणम् ।
प्रस्तरस्य गलस्यापि शिखरस्य च लक्षणम् ॥
लुपाया लक्षणं पश्चात्तत्र मूर्ध्नेष्टकाविधिम् ।
नासिकालक्षणं स्तूपिलक्षणं शान्तिकादिकम् ॥
वृत्ताष्टाश्रषडश्रादिप्रासादाकारलक्षणम् ।
मण्डपस्य विधिः पञ्चप्राकारं गोपुरं ततः ॥
परिवारविधिं पश्चान्महापीठस्य लक्षणम् ।
ध्वजस्य लक्षणं सन्धिलक्षणं चित्रलक्षणम् ॥
प्रत्येकं क्रमशः प्रोक्ताः पूर्वभागे भवन्त्विति ।
षट्चत्वारिंशदध्यायाः शिल्परत्नाख्यसंग्रहे ॥
अथातो बिम्बलिङ्गादि साधनस्वीकृतिक्रमः ।
लिङ्गस्य लक्षणं पश्चाल्लिङ्गलक्षणलक्षणम् ॥
बिम्बायामविधिः पश्चादुत्तमं दशतालकम् ।
मध्यमं दशतालं चाप्यधमं दशतालकम् ॥
उत्तमं नवतालं च मध्यमं नवतालकम् ।
अधमं नवतालं चात्यष्टतालस्य लक्षणम् ॥
सप्ततालं च षट्तालं पञ्चतालं तथैव च ।
चतुस्तालं ततः पश्चाद् भूषायुधविधिः पुनः ॥
शूलसंस्थापनं पश्चाद् रज्जुबन्धक्रमं पुनः ।
मृल्लेपनं तथा देवीलक्षणं वाहलक्षणम् ॥
(कि)ञ्च शैवप्रकरणं वैष्णवं शक्तिमार्गजम् ।
ध्यानं च बिम्बदोषं च पीठलक्षणमेव च ॥
प्रतिष्ठायाः क्रमं पश्चाज्जीर्णोद्धारः ततः परम् ।
लिङ्गप्रासादकरणं मानुषालयलक्षणम् ॥
कूपप्रश्नं ततः पश्चादासनादिपरिच्छदम् ।
कर्मकारजनस्यास्य वेलनाकल्पनक्रमम् ॥
छुरिकालक्षणं पञ्चत्रिंशदस्ताध्यायसमन्वितम् ।
भवेत् तदुत्तरं भागं सज्जनेभ्यो नमो नमः ॥

(ii) कलात्मका:—

तथाहि चतुर्विधं स्थापत्यम् (स्थपतिलक्षणमित्यर्थः)
अष्टाङ्गं स्थापत्यं च—

स्थपति-लक्षणम्—

१. स० सू० ४४. १–२२ (स्थपतिलक्षणम्)

स्थापत्यमुच्यतेऽस्माभिरिदानीं प्रक्रमागतम्।
ज्ञातेन येन ज्ञायन्ते स्थपतीनां गुणागुणाः॥
शास्त्रं कर्म तथा प्रज्ञा शीलं च क्रिययान्वितम्।
लक्ष्यलक्षणयुक्तार्थशास्त्रनिष्ठो नरो भवेत्॥
सामुद्रं गणितं चैव ज्यौतिषं छन्द एव च।
सिराज्ञानं तथा शिल्पं यन्त्रकर्मविधिस्तथा॥
एतान्यङ्गानि जानीयाद् वास्तुशास्त्रस्य बुद्धिमान्।
शास्त्रानुसारेणाभ्युद्य लक्षणानि च लक्षयेत्॥
प्रसिद्धशास्त्रदृष्टान्तैर्वास्तुज्ञानं प्रसाधयेत्।
वास्तुनः ससिरावंशैर्मर्मवेधैः सुनिश्चितैः॥
वास्तुद्वारक्षणान् भूयः सर्वान् जानाति शास्त्रतः।
यस्तु शास्त्रमविज्ञाय प्रयोक्ता स्थपतिर्भवेत्॥
हन्तव्यः स स्वयं राज्ञा मृत्युवद् राजहिंसकः।
मिथ्याज्ञानादहङ्कारी शास्त्रे चैवाकृतश्रमः॥
अकालमृत्युर्लोकस्य विचरेद् वसुधातले।
यस्तु केवलशास्त्रज्ञः कर्मस्वपरिनिष्ठितः॥
स मुह्यति क्रियाकाले दृष्ट्वा भीरुरिवाहवम्।
केवलं कर्म यो वेत्ति शास्त्रार्थं नाधिगच्छति॥
सोऽचक्षुरिव नीयेत विवशोऽन्येन वर्त्मसु।
कर्म वास्तुविधेः स्थानं मानमुन्मानमेव च॥
चैत्रजा(दि?नि)च कर्माणि लुमालेखा(च?श्च)तुर्दश।
च(त्वा?तु)रो गण्डिकाच्छेदान् वृत्तच्छेदेषु सप्तसु॥
सुश्लिष्टं सन्धिसन्धानैरधरोत्तरसंयुतम्।
बाह्यरेखान्वितं शुद्धं यो जानाति स कर्मवित्॥
शास्त्रकर्मसमर्थोऽपि स्थपतिः प्रज्ञया विना।
फलेयुः कर्मभिरन्याभिः (?) स्यान्निर्मद इव द्विपः॥
प्रत्युत्पन्नमतिर्यः स्याद् वाह (तः? कः) स्थपतिस्तथा।
कर्मकाले न मुह्येत स प्रज्ञानेनोपबृंहितः॥
अप्रज्ञेयं दुरालोकं गूढार्थं बहुविस्तरम्।
प्रज्ञापोतं समारुह्य प्राज्ञो वास्तुनिरं(धि)तरेत्॥
ज्ञानवांश्च तथा वाग्मी कर्मस्वपि च निष्ठितः।
एवं युक्तोपि न श्रेयान् यदि शीलविवर्जितः॥
रोषाद् द्वेषात् तथा लोभान्मोहाद् रागात् तथैव च।

अन्यचिन्त्यत्वमायाति दुःशीलानामविक्षयात्(?) ॥
शीलवान् पूजितो लोके शीलवान् साधुसम्मतः ।
शीलवान् सर्वकर्माहः शीलवान् प्रियदर्शनः ॥
शीलाधाने परं यत्नमा(धि?ति)ष्ठेत् स्थपतिः सदा ।
ततः कर्माणि सिध्यन्ति जनयन्ति शुभानि च ॥
तथाचाष्टविधं कर्म ज्ञेयं स्थपतिना सदा ।
आलेख्यं लेख्यजातं च दारुकर्मचयस्तथा ॥
पाषाणसिद्धहेम्नां च शिल्पं कर्म तथैव च ।
एभिर्गुणैः समायुक्तः स्थपतिर्याति पूज्यताम् ॥
स्थापत्यमङ्गैरिदमष्टभिर्यश्चतुर्विधं वेत्ति विशुद्धबुद्धिः ।
स शिल्पिनां संसदि लब्धपूजः परां प्रतिष्ठां लभते चिरायुः ॥

२. अ० पृ० ४०. १–२४ (सूत्रधारलक्षणम्)

शृणु वत्स! यथान्यायं सूत्रधारस्य लक्षणम् ।
शास्त्रज्ञः कुशलो दक्षो वास्तुविद्याविबोधकः ॥
सूत्रधारो महाप्राज्ञः षट्कर्मसु निरन्तरम् ।
यो नित्यं त्यमरत्त्वं सामुष्टोपि तदालयम् ? ॥
माधुर्यवांस्तथालापे वास्तुविद्यादिकौशलः ।
ज्ञानचक्षुः सुहृदयः प्रारम्भादिरुजापहः ॥
हस्तलाघवसम्पन्नो धाव्यचित्रादिकौशलः ।
चक्षुःप्रत्यक्षकृच्चैव ह्यदृष्टं ज्यौतिषो यथा ॥
ग्रन्थार्थगुणसम्पृक्तो वास्तुमर्मादिबोधकः ।
आत्ममत्युद्भवं रूपं ससूत्रं स च कर्मणा ॥
सूत्रधारोपचारोर्थं ? वास्तुशास्त्रादिबोधनम् ।
भुवनकोशविज्ञानं प्रमाणं सूत्रकर्मणि ॥
समुद्रोपकण्ठदेशमहाशैलाश्रमादिकम् ।
भूमिभागैरनेकैश्च परीक्षा सूत्रकर्मणाम् ॥
मर्मोपमर्मवेधाश्च वंशोपवंशकानि च ।
सन्धिरेखाषट्कशतं लाङ्गलं पञ्चकादिकम् ॥
षण्मर्मवेधा विज्ञेया वास्तुदेहसमुद्भवाः ।
निघण्टुं देवतानां च जानीयात् सूत्रकर्मणि ॥
नगरग्रामखेटाद्यं वास्तुवेदसमुद्भवम् ।
कूटकर्वटकूप्यादि ज्ञायते सूत्रकर्मणा ॥
पुरप्राकारपरिखाप्रतोलीमार्गगोपुरम् ।
गृहं च राजवेश्माद्यं ज्ञायते सूत्रकर्मणा ॥
प्रासादप्रतिमालिङ्गजगतीपीठमण्डपम् ।
वेदीकुण्डं स्रुचा चैव ज्ञायते सूत्रकर्मणा ॥

रेखानां विविधाकारा प्रासादशिखरोत्तमाः।
घण्टाकलशध्वजाद्यं ज्ञायते सूत्रकर्मणा॥
द्वारशाखाविधिं ज्ञात्वा मूलप्रासादच्छन्दजम् ?
द्वारपालविधिश्चैव ज्ञायते सूत्रकर्मणा॥
द्वारदृष्टिपदस्थानं तथाग्रे वाहनादिकम्।
दृष्टिस्थानं चान्तरं तु ज्ञायते सूत्रकर्मणा॥
लक्षणं च द्वारविधिं शिवलिङ्गेषु सर्वतः।
मानोन्मानप्रमाणं च ज्ञायते सूत्रकर्मणा॥
वितानानि विचित्राणि क्षिप्तान्युत्क्षिप्तकानि च।
मन्दारसभापद्मानि ज्ञायन्ते सूत्रकर्मणा॥
वितानानां संवरणा घण्टाकूटसमाकुलाः।
सिंहसङ्घटनाकीर्णा ज्ञायन्ते सूत्रकर्मणा॥
शुक्लाम्बरधरः सूत्रस्वस्थचित्तः समाहितः।
पूजापरिग्रहं दद्यादात्मचिन्तस्तु दैवते॥
तुष्टिदानं ततो दद्यात्सर्वकर्मसु वै तथा।
सुभृत्यांस्तोषयेत्तत्र कर्मकारापरैः सह॥
तोषितैः सर्वसूत्रैश्च गुरुतः क्षेममाप्नुयात्।
निर्विघ्नं च भवेत्तत्र सर्वकामफलं भवेत्॥
सिद्धिं विनायकं चादौ क्षेत्रपालांस्ततोऽर्चयेत्।
पूजयेदुक्तविधिना योगिनीश्च कुमारिकाः॥
भूपरिग्रहणं प्रोक्तं शुभं धात्रीपरीक्षणम्।
पूर्वं त्वेवं प्रवक्ष्यामि शृणु चैकाग्रमानसः॥

३. वा० वि० स्थपति-लक्षणम्— १. १२-२०

अथ वक्ष्यामि सङ्क्षेपाच्छिल्पिनां लक्षणं पृथक्।
स्थपतिः स्थापनार्हः स्यात् सर्वशास्त्र विशारदः॥
नहीनाङ्गोऽतिरिक्ताङ्गो धार्मिकस्तु दयापरः।
अमात्सर्योऽनसूयश्च तान्त्रिकस्त्वभिजातवान्॥
गणितज्ञः पुराणज्ञ आनन्दात्माप्यलुब्धकः।
चित्रज्ञः सर्वदेशज्ञः सत्यवादी जितेन्द्रियः॥
अरोगी चाप्रमादी च सप्तव्यसनवर्जितः।
सुनामा दृढबन्धुश्च वास्तुविद्याब्धिपारगः॥
स्थपतेस्तस्य शिष्यो वा सूत्रग्राही सुतोऽथवा।
स्थपत्याज्ञानुसारी च सर्वकर्मविशारदः॥
सूत्रदण्डप्रमाणज्ञो मानोन्मानप्रमाणवित्।
तद्वितानां तक्षकेणाप्युपर्युपरि युक्तितः॥
वृद्धिकृद् वर्धकिः प्रोक्तः सूत्रग्राहानुगः सदा।

तक्षणात् स्थूलसूक्ष्माणां तक्षकः स तु कीर्तितः ॥
मृत्कर्मज्ञो गुणी शक्तः सर्वकर्मस्वतन्त्रकः ।
गुरुभक्तः सदा हृष्टः स्थपत्याद्यनुगः सदा ॥
एभि विना न सर्वेषां कर्तुं कर्म न शक्यते ।
तस्मादेषां सदा पूज्यं स्थपत्यादिचतुष्टयम् ॥

४. मान०
२.१-१७
(शिल्पिकोदयः)

शिल्पिनां लक्षणं वक्ष्ये मानोपकरण(णं)क्रमात् ।
परःशिवसकाशाद्धि ब्रह्मा इ(चे)न्द्रोऽपि लोककृत् ॥
स महाविश्वकर्मेति ई(त्वी)श्वरेणैव कीर्तितः ।
स एवायं विश्वकर्मा ब्रह्माण्डं सृजते मुहुः ॥
विश्वकर्मा चतुर्वर्ण(पूर्ववक्त्रादीनि चत्वारि) नाम(मानि) वक्ष्ये पृथक् पृथक् ?
विश्वभूरिति नामैतत्पूर्ववक्त्रं प्रकीर्तितम् ॥
दक्षिणे विश्वविद्वक्त्रं विश्वस्त(स्य)श्च तथोत्तरे ।
पश्चिमे विश्वस्रष्ट्राख्यं वक्त्रमेवं चतुर्विधम् ॥
एतेभ्यः प्रथमो जातो विश्वकर्मा चतुष्टयः ।
पूर्वानने विश्वकर्मा जातो दक्षिणे मयः ॥
उत्तरस्य मुखे त्वष्टा पश्चिमे तु मनुः स्मृतः ।
उपयेमे विश्वकर्मा इ(त्वि)न्द्रस्य तनयां तदा ॥
मयः सुरेन्द्रतनयामुपयेमे क्रमात्ततः ।
त्वष्टा वैश्रवणसुतामुपयेमे त्वनन्तरम् ॥
मनुर्नलस्य तनयामुपयेमे तु तुर्यकम्(कः) ।
विश्वकर्माख्यनाम्नोस्य(इत्यस्य) पुत्रः स्थपतिरुच्यते ॥
मयस्य तनयः सूत्रग्राहीति परिकीर्तितः ।
त्वष्टुर्देव-ऋषेः पुत्रो वर्धकी(किरि)ति प्रकथ्यते ॥
मनोः पुत्रस्तक्षकः स्यात्स्थपत्यादिचतुष्टयम् ।
स्थपतिस्तु त्वतुर्येभ्यस्त्रिभ्यो गुरुरिति स्मृतः ॥
सूत्रग्राही गुरुर्द्वाभ्यां तुर्येभ्योऽद्य इति स्मृतः ।
तक्षकस्य गुरुर्नाम(म्ना) वर्धकी(किरि)ति प्रकीर्तितः ॥
स्थपतिः सर्वशास्त्रज्ञः सूत्रग्राहीति सूत्रदृक् ।
वर्धकी (किर्) मानकर्मज्ञः तक्षणात्तक्षकः स्मृतः ॥
स्थपतिः स्थापनायार्हः वेदविच्छास्त्रपारगः ।
स्थापनाधिपतिर्यस्मात्तस्मात्स्थपतिरुच्यते ॥
स्थपतेश्चाज्ञया सर्वे सूत्रग्राह्यादयः सदा ।
कुर्वन्ति शास्त्रदृष्टे(ष्टादेशे)न वास्तुवस्तु प्रयत्नतः ॥
स्थपत्यादिचतुर्वर्णाः शिल्पिभिः परिकीर्तिताः ।
आचार्यलक्षणैर्युक्तं(क्तः)स्थपतिर्नाम धीयते ॥

श्रुतज्ञः सूत्रग्राही च रेखाज्ञः शास्त्रवित्तमः।
विचारज्ञः श्रुतज्ञश्च चित्रकर्मज्ञ (ज्ञो)वर्धकी(किः)॥
तक्षकः कर्मवित्सभ्यो बलबन्धू(न्धु) दयापरः।

४. शिल्प०
(अ) आचार्यलक्षणम्
१. २९–३३

ग्रामादिकं वा नृगृहादिकं वा
वाप्यादिकं वा विबुधालयं वा।
यः कर्तुमिच्छत्यथ संवृतं ते-
न स्याद्गुरुशिल्पिरेतदर्थम् (?)॥
विप्रः कुलीनः कृतसंस्क्रियौघः
स्वाधीतवेदागमतत्त्ववेत्ता।
वर्णाश्रमाचारपरोऽधिदीक्षो
दक्षस्तपस्वी गुरुरास्तिकोऽस्तु॥
पूर्वं स्थपतिरेष्टव्यः शिल्पशास्त्रविशारदः।
तथैव शिल्पशास्त्रज्ञो युक्तः स्वाचार्यलक्षणैः॥
स्थापकोऽपि वृतः कर्त्रा वास्तुकर्म समाचरेत्।
ताभ्यामुभाभ्यां प्रारब्धं विमानं वान्यदेव वा॥
निष्पाद्यमासमाप्तेः स्यात् ताभ्यामेव हि नेतरैः।
तयोरभावे तत्पुत्रैः शिष्यैर्वा कर्मतत्परैः॥

(ब) शिल्पिलक्षणम्
१.३४–४१½

स्थपतिः स्थापनार्हः स्यात् सर्वशास्त्रविशारदः।
न हीनाङ्गोऽतिरिक्ताङ्गो धार्मिकस्तु दयापरः॥
अमात्सर्योऽनसूयश्च तान्त्रिकः स्वाभिजातवान्।
गणितज्ञः पुराणज्ञः सानन्दश्चाप्यलुब्धकः॥
चित्रज्ञः सर्वदेशज्ञः सत्यवादी जितेन्द्रियः।
अरोगी चाप्रमादी च सप्तव्यसनवर्जितः॥
सुनामा दृढबन्धुश्च वास्तुविद्याब्धिपारगः।
स्थपतेस्तस्य शिष्यो वा सूत्रग्राही सुतोऽथवा॥
स्थपत्याज्ञा(नधारी?नुरोधी) च सर्वकर्मविशारदः।
सूत्रदण्डप्रमाणज्ञो मानोन्मानप्रमाणवित्॥
तक्षणात् स्थूलसूक्ष्माणां तक्षकः स तु कीर्तितः।
मृत्कर्मज्ञो गुणी शक्तः सर्वकर्मस्वतन्त्रकः॥
गुरुभक्तः सदा हृष्टः स्थपत्याद्यनुगः सदा।
तक्षितानां तक्षकेणाप्युपर्युपरि युक्तितः॥
वृद्धिकृद् वर्धकिः प्रोक्तः सूत्रग्राह्यनुगः सदा।
एभिर्विनापि सर्वेषां कर्म कर्तुं न शक्यते॥
तस्मादेष सदा पूज्यः स्थपत्यादिचतुष्टयः॥

अष्टाङ्गं स्थापत्यम्

स० सू०
४९.१-६

प्रोक्तं चतुर्धा स्थापत्यं वास्तुतत्त्वस्य सिद्धये।
ब्रूमस्तदेव चेदानीमङ्गैः संयुक्तमष्टभिः॥
तेष्वङ्गं प्रथमं प्रोक्तं वास्तुपुंसो विकल्पना।
पुरस्य विनिवेशस्तु द्वितीयं द्वारकर्म च॥
रथ्याविभागः प्राकारनिवेशोऽट्टालकस्य च।
विनिवेशः प्रतोलीनां विभागस्थानकानि च॥
प्रासादश्च तृतीयं स्याच्चतुर्थं तु ध्वजोच्छ्रितिः।
पञ्चमं नृपतेर्वेश्म स्थानान्तरविभक्ति च॥
चातुर्वर्ण्यविभागश्च गृहभागश्च षष्ठकम्।
सप्तमं यजमानस्य शालायां मानमीरितम्॥
यज्ञवेदीप्रमाणं च कोटिहोमविधिस्तथा।
अष्टमं राजशिविरनिवेशो दुर्गकर्म च॥
यो वेत्त्यङ्गान्यमून्यष्टौ सोऽत्र स्थपतिसत्तमः।
यशो मानं स लभते पूज्यते च नराधिपैः॥
अशास्त्रज्ञमकर्मज्ञं स्थपतिं यः प्रयोजयेत्।
न तस्य वास्तु सिध्येत सिद्धमप्यसुखावहम्॥
तस्मात् कर्म च शास्त्रं च यो वेत्ति द्वितयं नरः।
अष्टाङ्गमपि यो वेत्ति स राज्ञः स्थपतिर्भवेत्॥

द्वितीयः पटलः

मौलिकाधाराः—

१. दिङ्निर्णयः (शङ्कुस्थापनं च)
२. वास्तुपदानि
३. मानम्
४. आयादिषड्वर्गः
५. पताकादिच्छन्दांसि च

दिङ्-निर्णयः

१. वि० वा० ३. १–२४

आदौ कालं परीक्षेत सर्वकार्यार्थसिद्धये।
कालो हि सर्वजीवानां शुभाशुभफलप्रदः॥
कालातिक्रमणे दोषो द्रव्यहानिश्च जायते।
देवानामपि देवीनां विप्रादीनां विशेषतः॥
प्रासादभवनारम्भे स्तम्भस्थापनकर्मणि।
द्वारस्थापनवेलायां भवनानां प्रवेशने॥
वापीतटाकनिर्माणे गोपुरारम्भकर्मणि।
विमानमण्डपारामगर्भगेहोद्धृतौ तथा॥
कालं शुभं परीक्षेत मङ्गलावाप्तिसाधकम्।
देशभेदेन कालोऽपि भिन्नतां प्रतिपद्यते॥
इष्टिकान्यसनं शस्तं शुभकाले विशेषतः।
तस्मात्सर्वप्रयत्नेन शुभं कालं न लङ्घयेत्॥
प्राचीं परीक्षयेत्सम्यक् सूर्यगत्यनुमानतः।
गृहीतस्थलके शङ्कुमवटे स्थापयेत्क्रमात्॥
खदिरस्तिन्दुको वापि क्षीरवृक्षसमुद्भवः।
शङ्कुः श्रेयस्करः प्रोक्तो द्वादशाङ्गुलमानभाक्॥
हस्तप्रमाणतो वापि द्विहस्तो देवमन्दिरे।
शङ्कोरुपरि मानस्य सूचिका सा शिखा मता॥
यत्र सा पतति व्यक्ता तत्स्थानं बिन्दुसंज्ञकम्।
शिल्पाचार्यवरैः शङ्कुस्थापनं कल्पयेद् बुधः॥
चक्राकारे नेमियुक्ते मण्डले शङ्कुभासुरे।
शङ्कुच्छायाप्रसारस्तु यत्र भाति सलक्षणः॥
तं प्रदेशं निरीक्ष्यैव प्राचीनिर्णयमादिशेत्।
उत्तरायणमासेषु दक्षिणायनगेष्वपि॥

कन्यायां वृषभे मासि यदि व्यक्ते दिवाकरे।
शङ्कुच्छाया मध्यगा स्यान्नहि पार्श्वे कदाचन॥
मेषस्थे वा मृगस्थे वा रवौ तु चतुरङ्गुला।
शङ्कुच्छाया भवेद्व्यक्ता दिशां निर्णयकारिणी॥
मकरस्थे रवौ शङ्कोश्छायाष्टाङ्गुलका भवेत्।
मिथुनस्थे रवौ शङ्कोश्छाया तु त्र्यङ्गुला मता॥
कुलीरस्थे रवौ शङ्कोश्छाया वेदाङ्गुला मता।
सिंहस्थे तु रवौ शङ्कोश्छाया वेदाङ्गुला मता॥
तुलास्थिते रवौ शङ्कोश्छाया तु द्व्यङ्गुला मता।
वृश्चिकस्थे रवौ शङ्कोश्छाया स्याच्चतुरङ्गुला॥
चापस्थिते रवौ शङ्कोश्छाया स्याच्च षडङ्गुला।
मीनस्थिते रवौ शङ्कोश्छाया स्याच्चतुरङ्गुला॥
इति द्वादशमासस्थे रवौ छाया स्फुटा भवेत्।
उत्तरायणमासेषु छाया दक्षिणगा भवेत्॥
दक्षिणायनमासेषु छाया चोत्तरगा भवेत्।
छायामानवशादेवमङ्गुलानि विसर्जयेत्॥
शिष्टच्छायाप्रसारेण सम्यक्प्राचीं समादिशेत्।
विन्ध्यस्य दक्षिणे देशेष्वेवं प्राचीविनिर्णयः॥
आर्यावर्तस्थदेशानां प्राचीनिर्णय उच्यते।
मकरादिचतुर्मासेष्वेवं छायाङ्गुला भवेत्॥
वृषभस्थे रवौ शङ्कोश्छाया तु चतुरङ्गुला।
मिथुनस्थे रवौ शङ्कोश्छाया स्याच्च षडङ्गुला॥
इति दक्षिणगा छाया प्राचीनिर्णयकारिणी।
कुलीरस्थे वृश्चिकस्थे रवौ छाया न विद्यते॥
सिंहस्थैकाङ्गुला प्रोक्ता कन्यास्थे द्व्यङ्गुला भवेत्।
तुलाचापस्थिते भानावङ्गुला सा प्रकीर्तिता॥
इति चोत्तरगाच्छाया प्राचीनिर्णयकारिणी।
ब्रह्मावर्तस्थदेशानां प्राचीनिर्णय उच्यते॥
मकरादिषु मासेषु त्रिपुच्छायाङ्गुला भवेत्।
मेषस्थे वृषभस्थे च छाया तु त्र्यङ्गुला मता॥
मिथुनस्थे झषस्थे च छाया पञ्चाङ्गुला मता।
मीनस्थे च क्वचिच्छाया न भवेदिति तान्त्रिकाः॥
कुलीरस्थे रवौ चापस्थिते च न हि सा स्फुटा।
सिंहकन्यास्थिते भानौ सा चतुष्पञ्चका मता॥
तुलास्थिते द्व्यङ्गुला स्यादितिच्छायाक्रमो भवेत्।

शङ्कुस्थापनवेलायां विप्रेभ्यो बहुदक्षिणाः ॥
मार्दङ्गिकैः स्वस्तिकैश्च जयशब्दश्शुभावहः ।
सूत्रप्रसारमानेन शुद्धां प्राचीं समाश्रयेत् ॥
पुरारम्भे गृहारम्भे गोपुरारम्भकर्मणि ।
गर्भगेहविमानादिसद्मास्तुषु शुभावहः ॥
शिल्पिनां माननं शस्तं हेमभूषादिभिश्शुभैः ।
स्थूपिस्थापनकाले च प्राकारस्थापने तथा ॥
प्रासादभवनारम्भे वापीकूपादिकेषु च ।
गृहप्रवेशकाले च स्वस्तिवोपश्शुभावहः ॥
दिशां कोणास्तु चत्वारो न शस्ता आयलक्षणे ।
तस्मात्सर्वप्रयत्नेन शुद्धां प्राचीं समाश्रयेत् ॥

२. अ० पृ० ६३.१६–२२

प्राचीमतः प्रवक्ष्यामि दिङ्मूढभ्रान्तिनाशिनीम् ।
सा च पञ्चविधा प्रोक्ता कथये यामनुक्रमात् ॥
दिनादौ मेषतुलयोः कृत्तिकाश्रवणोदये ।
चित्रास्वात्यन्तरे चैव शङ्कुच्छाया ध्रुवेषु च ॥
कृत्तिकोदये या प्राची सा प्राची श्रवणोदये ।
चित्रास्वात्यन्तरे प्राची तत्र सूत्रान्तरोत्तरा ॥
ध्रुवशङ्कूद्भवा प्राची सूत्रसूत्रान्तरोत्तरा ।
दिनादौ मेषतुलयोः सूर्यभुक्त्यैकमार्गतः ॥
स्यात्पलत्रयतो वृद्धिर्ह्रस्वे ह्रस्वं तु वर्धयेत् ।
ह्रासवृद्धीश्चर्तुदार्द्धमयनं दक्षिणोत्तरम् ॥
जलाग्रमस्तकभवा साधने स्यात् समक्षितिः ।
साधनीया क्षमा त्वेवं शङ्कुमूर्ध्वं च स्थापयेत् ॥
अमसिद्धाः समतला निर्व्रणा दोषवर्जिताः ।
द्वादशपर्वोद्भवाश्च शङ्कुच्छायाश्च पर्वभिः ॥
द्वादश दशाष्टाभिश्च त्रिभिर्वृत्तं क्षिप्ताङ्कितम् ।
शङ्कुच्छायस्त्रिगुणतो द्विपर्वयुक्तिकोत्तमाः ॥
परिधौ बाह्यवृत्तस्य व्यासे शङ्कुतुल्योत्तमा ।
कूलवंशपूर्वा छाया शङ्कुश्चरणाश्रितः ? ॥
छायाग्रे वृत्ततुल्या च छाया पूर्वापरोद्भवा ।
प्रवेशे निर्गमे छाया याति सूत्रं सदा भवेत् ॥
याम्योत्तरं सूत्रपाते मत्स्यमुखं पुच्छाग्रसूत्रे ? ।
याम्योत्तरोद्गतं सूत्रं विकर्णैः कर्णसाधनम् ॥
अथ रात्रौ ध्रुवं साध्यं ध्रुवाक्षा दक्षिणोत्तरम् ।
मण्डलोभयपक्षे च मध्ये स्थाप्यं त्रिदीपकम् ॥

एकसूत्रे यदा त्रीणि दीपशिखाग्रकाणि च ।
पूर्वसंस्थं ध्रुवं साध्यमपरस्थं च दोषकृत् ॥
शस्तं तु मीनपातैश्च पूर्वापरादिसाधनम् ।
विकर्णाकर्णगा साध्या ध्रुवशङ्कुप्राच्युद्भवः ॥

वा० राज० १. १०–११

प्राची मेषतुलारवेरुदयतः स्याद्वैष्णवे वह्निभे
चित्रास्वातिभमध्यगा निगदिता प्राची बुधैः पञ्चधा ।
प्रासादं भवनं करोति नगरं दिङ्मूढमर्थक्षयं
हर्म्ये देवगृहे पुरे च नितरामायुर्धनं दिङ्मुखे ॥
तारे मार्कटिके ध्रुवस्य समतां नीतेऽवलम्बे नते
दीपाग्रेण तदैक्यतश्च कथिता सूत्रेण सौम्या दिशा ।
शङ्कोर्नेत्रगुणो तु मण्डलवरे छायाद्वयान्मत्स्ययो-
र्जाता यत्र युतिस्तु शङ्कुतलतो याम्योत्तरे स्तः स्फुटे ॥

मनुष्या० २. १–६

यन्त्रेणावनतादिना च निपुणो यद्वाम्बुसम्पूरणे-
नोर्वी चारु समीकरोत्वथ दृढं शङ्कुं करार्धायतम् ।
मूले द्व्यङ्गुलविस्तृतं क्रमवशादग्रे तदर्धान्मित-
व्यासं वृत्ततरं सरोजमुकुलाकाराग्रमाकल्पयेत् ॥
शङ्कुदीर्घयुगसम्मितसूत्रेणाकलय्य परिवृत्य सुवृत्तम् ।
वृत्तमध्यमवधार्य सुसूक्ष्मं शङ्कुमत्र तु दृढं निवेशयेत् ॥
शङ्कुच्छायाग्रभागे त्ववहितहृदयो वृत्तलग्नेऽङ्कयित्वा
प्राह्णान्ते पश्चि (मस्यां?) मायां दिशि तदितरदिश्येवमेवापराह्णे ।
पाश्चात्त्येऽन्येद्युरप्यङ्कनमपि च विधायाङ्कयोरेतयोर-
प्यन्तर्भागत्रिभागे नयतु गतदिनाङ्कं तदेवेह सूक्ष्मम् ॥
पूर्वापरेद्युःप्रभवाङ्कयुग्ममेवं सुसूक्ष्मं परिकल्पितं यत् ।
तदङ्कयुग्माहितसूत्रमेव पूर्वापराशाप्रभवं सुसूक्ष्मम् ॥
एवं क्षेत्रस्य मध्ये सुविहितमिह यद् ब्रह्मसूत्रं तदाहु-
स्तन्मध्येऽन्योन्यमन्तर्गतमथ रचयेत् वृत्तयुग्मं च धीमान् ।
तद्योगात् तिर्यगुद्यज्झषजठरसुषुम्नाध्वना सूत्रमेकं
याम्योदग्गामि सूक्ष्मं रचयतु यमसूत्रं तदित्यामनन्ति ॥
तत्सूत्रद्वितयेऽथ दिक्षु चतसृष्वङ्कान् समं कल्पयि-
त्वाङ्कारोपितमध्यकानि सुसमं चत्वारि वृत्तानि च ।
सिध्यन्त्यत्र विदिक्षु वृत्तयुगलीयोगेन मत्स्याः शिवा-
ग्न्यग्रास्तद्गतसूत्रयुग्ममपि चात्राव्ययमाकल्पयेत् ॥
सूत्रे प्रागुदगग्रके क्षितितले कृत्वा चतुःखण्डिते
खण्डे कल्पयतु द्विजादिवसतिं शार्वेऽथवा नैरृते ।
क्षेत्रे विस्तृतिरस्ति चेत् पुनरपि श्रुत्यंशिते गृह्यते

शैवे नैऋतखण्डमेव निऋतौ शैवं शुभं चोभयोः ॥
धात्रीतलेऽद्ध्यंशिनि मानुषाख्यं गृहाभिवृद्धिप्रदमैशखण्डम् ।
देवाह्वयं नैऋतमिष्टदं स्यादुभे शुभे गेहविधौ नराणाम् ॥
आग्नेयखण्डं यमसंज्ञितं स्यान्मृतिप्रदं चाखिलवर्ज्यमेतत् ।
वायव्यमप्यासुरसंज्ञितत्वान्निन्द्यं विशां क्वापि च गृह्यते तत् ॥

५. मान० ६. १-६०

अथातः संप्रवक्ष्यामि शङ्कुस्थापनलक्षणम् ।
आदित्योदयकाले तु शङ्कुस्थापनमारभेत् ॥
उत्तरायणमासे तु दक्षिणायनगे (न ए) ऽथवा ।
शुक्लपक्षे यथा (ऽथवा) कृष्णपक्षे शुभतमे दिने ॥
पौर्णमीं(पूर्णिमां)चाप्यमावास्यां वर्जयेत्सुमुहूर्तके ।
प्रभाते स्थापयेच्छङ्कुमपराह्लात् (ह्णे) ततः स्थितम् ॥
स्थापनात्पूर्वदिवसे स्थलशुद्धिं प्रकारयेत् ।
ग्रामभूमध्यदेशे तु चतुरश्रं समन्ततः ॥
चतुर्हस्तप्रमाणेन विधतः सलिलस्थलम् ।
कृतमाल(लं) शमीशाखाचन्दनं रक्तचन्दनम् ॥
खदिरं तिन्तु(न्दु)कं चैव शङ्कुदारु प्रकीर्तिता (तम्) ।
श्वेतक्षीरिणि(णी)वृक्षं(क्षो)वा शुभदन्तमथापि(वा) ॥
शङ्क्वायामं तु हस्तं स्यान्मूलाग्रान्तं क्षयं क्रमात् ।
सुवृत्तं निर्व्रणं चैव छत्राकारं तदग्रकम् ॥
एवं तु चोत्तमं शङ्कुं मध्यमं तत्प्रवक्ष्यते ।
अष्टादशाङ्गुलायामं मूलतारं शराङ्गुलम् ॥
अग्रमेकाङ्गुलं तारं शेषं प्रागुक्तवन्नयेत् ।
कन्यसं द्वादशाङ्गुल्यं शङ्क्वायामं विशेषतः ॥
चतुरङ्गुलविस्तारं मूलमग्रं त्रयाङ्गुलम् ।
अथवायामसंमूले नाहमग्रे नवाङ्गुलम् ॥
शेषं पूर्ववदुद्दिष्टं स्वीकरीकृतभूतले ।
तन्मध्ये विन्दुतस्तन्नो शङ्क्वायामद्वयेन च ॥
भ्रामयेन्मण्डलं कुर्यात्तन्मध्ये शङ्कुमर्पयेत् ।
पूर्वाह्णे शङ्कुतश्छायां पश्चिमे मण्डलान्तकम् ॥
तत्रैव विन्दुसंज्ञाश्च कुर्यात्तु शिल्पि(ल्प)वित्तमः ।
(अ)परा शङ्कुतश्छायां पूर्वदिङ्मण्डलान्तके ॥
पूर्ववद्विन्दु(न्दुं)संस्थाप्य पश्चाच्छङ्कुं त्यजेत्ततः ।
शङ्क्वायामपदाधिक्यनत्र्यंशविभाजिते ॥
तस्यांशेन प्रपच्छायां त्यक्त्वा प्राचीं नयेत्ततः ।
कन्यावृषभमासौ च द्व(सयोर)पच्छाया न विद्यते ॥

मेषे च मिथुने चैव तुलासिंहचतुष्टये।
एव हि द्व्यङ्गुलं न्यस्तं वृश्चिकाषाढमीनयोः (नेषु)॥
चतुरङ्गुलं प्रकर्तव्यं धनुःकुम्भौ(म्भयोः)षडङ्गुलम्।
मकरेऽष्टाङ्गुलं प्रोक्त(क्ता)मव(प)च्छायां(या)विशेषतः॥
छायायां बिन्दुवामे(तु)दक्षिणे चोक्ताङ्गुलं न्यसेत्।
अङ्गुलान्ते तु यच्छुद्धं प्राचीसूत्रं प्रयोजयेत्॥
मकरादि(दौ) च षण्मासे छाया दक्षिणतो भवेत्।
कुलीरादि(दौ) च षण्मासे छाया चोत्तरतो दिशि॥
छायाया अभिमुखे प्रत्यग्वामे वामं न्यसेद्यते (न्यसेद्तः)।
पूर्वे च दक्षिणे नीत्वा प्रत्यग्वामाङ्गुलान्न्यसेत्॥
अपच्छायां त्यजेच्छिल्पी प्राक् प्रत्यक् सूत्र(त्रं)विन्यसेत्।
तत्सूत्रात्पूर्वदिग्देशे नीत्वा चोत्तरतो दिशि॥
एवं मीनविवृद्धिः स्यात्पुरतोऽङ्गुलमेव च।
तत्सूत्राद्दक्षिणे सौम्यं(म्ये) तस्य द्वारं प्रकल्पयेत्॥
मत्स्यपुच्छानने न्यस्तं सूत्रं स्याद्दक्षिणोत्तरम्।
मण्डलावधिदेशे तु नीत्वा सूत्रा(त्रम)ङ्गुलं न्यसेत्॥
मासानां पङ्क्तिपङ्क्तेश्च दिवसानां त्रिधा त्रिधा।
विद्यमानाव(प)च्छाया(य)पच्छायां(या)चोच्यते॥
मेषे च प्रथमे पङ्क्ते (ङ्क्तौ) द्व्यङ्गुलं च विसर्जयेत्।
मध्ये दशदिने चैकं चान्त्ये पङ्क्त्या(म) ङ्गुलं विना॥
वृषभे प्रथमदशके दिवसे त्वङ्गुलं नहि।
मध्ये चैकाङ्गुलं प्रोक्तं पङ्क्त्यन्ते द्व्यङ्गुलं त्यजेत्॥
मिथुने प्रथमदशके दिवसे त्व(द्व्य) ङ्गुलं त्यजेत्।
मध्ये दशदिने वह्नि(ह्निं)चान्त्यपङ्क्ति (ौ)च तु त्यजेत्॥
कुलीरे प्रथमदशके वेदमात्रं विसर्जयेत्।
मध्ये दशदिने चापि त्र्यङ्गुलं तत्परित्यजेत्॥
द्व्यङ्गुलं चान्त्यदिवसे दशके समुदाहृतम्।
सिंहस्य चादिदशके द्व्यङ्गुलं च परित्यजेत्॥
मध्ये दशदिने चैकवा(म)न्त्यपङ्क्तौ विनाङ्गुलम्।
युवत्यामादिदशके दिवसे नाङ्गुलं भवेत्॥
मध्ये चैकाङ्गुलं त्यक्त्वा(क्तं)चान्त्यपङ्क्तौ द्व्या(द्व्य)ङ्गुलम्।
तुलारम्भे दशदिने द्व्यङ्गुलं च निषेधयेत्॥
विसृज्य(ज्यं)द्व्य(त्र्य)ङ्गुलं मध्ये चान्त्ये वेदमिति स्मृतम्।
वृश्चिके प्रथमे पङ्क्तिर्(ङ्क्तौ)दिवसे चतुरङ्गुलम्॥
मध्ये दशदिने वाणं चान्त्यपङ्क्तौ षडङ्गुलम्।

धनुराशौ दशदिने प्रथमे तु षडङ्गुलम् ॥
मध्ये दशदिने सप्तद्वय (सप्ता)ङ्गुलं च विवर्जयेत् ।
अन्त्यपङ्क्ति दिने त्याज्यं वसुमात्रमिति स्मृतम् ॥
मकरादौ दशदिने त्यजेदष्टाङ्गुलं बुधः ॥
मध्ये सप्ताङ्गुलं त्यक्त्वा(त्यक्तं)चान्त्ये त्यक्त्वा(क्तं)षडङ्गुलम् ।
कुम्भे चादौ दशदिने विसृजेत्तु षडङ्गुलम् ॥
मध्ये पञ्चाङ्गुलं त्यक्त्वा(क्तं)चान्त्ये च चतुरङ्गुलम् ।
मीनराशौ च दशके दिवसे चतुरङ्गुलम् ॥
मध्ये च पङ्क्ति दिवसे द्वय(त्र्य)ङ्गुलं च विसर्जयेत् ।
अन्ते दशदिने चापि वर्जयेद्द्वकाङ्गुलम् ॥
अपच्छायं(या)तत्र नास्ति यदुक्तं तदिहोच्यते ।
प्रागुक्तरविराश्यां तु कन्यायां वृषभस्थितम् ॥
अपरे विंशतिदिने तत्तदृक्षं भं यदि ।
उक्ताङ्गुलं तत्र नास्ति सूत्रं ज्ञात्वा प्रसारयेत् ॥
राश्यां(ऋक्ष)युतं रवेर्मासं प्रो(प्रे)क्ष्यापि च परित्यजेत् ।
ऊहापोहाप्यरुक्तादि दशा(द्वया)ङ्गुलं न्यत्र(स्तं)सूरिभिः ॥
तद्दशाङ्ककुभं ग्राह्य(ह्यं)तत्र सूत्रं प्रसारयेत् ।
शुद्धप्राची भवेत्सम्यगैशान्या प्राच्यथोच्यते ॥
प्राच्यङ्गुलकृताद्बिन्दोरुत्तरे चाङ्गुलं न्यसेत् ।
प्रतीचीमात्रतद्बिन्दोरीशप्राची (चीं) प्रसूत्रयेत् ॥
मुक्तिकामस्य करणे शुद्धप्राचीं प्रयोजयेत् ।
ऐशान्यप्राची सर्वस्य भोगकामस्य संमताम्(ता) ॥
आग्नेयं प्राचीसंयुक्तं सर्वदोषकरं भवेत् ।
आग्नेयप्राच्यिकं वास्तु तस्मात्सर्वं विसर्जयेत् ॥
एवं कृते त्वलं वास्तौ(स्तु)सुगाढं सुसमृद्धये ।
दण्डमानसमं सूत्रदीर्घमानं प्रकल्पयेत् ॥
आदौ तन्तुं त्रिधा कृत्वा सूत्रग्राहीति योजयेत् ।
वा(द्वि)मावर्तं तु सूत्रं स्यात्तृतीयावर्तदक्षिणम् ॥
कार्पासं(स)सूत्रसंयुक्तं(वा)पट्टसूत्रमथापि वा ।
सूत्राह्य(च ल)भ्यते वास्तौ प्रमाणं हीति निश्चितम् ॥
मध्यादिन्द्राच्च त(न्नैऋ तात्त)द्दिक्षु न्यसेन्द्रादि(सेदिन्द्र)शिखान्तकम् ।
इन्द्रादीशानपर्यन्तं चान्तकात्पावकान्तम् ॥
वरुणाद्वायुपर्यन्तं सौम्यादेर्वायु(यो)र्वान्तकम् ।
सौम्यादीशानपर्यन्तं सूत्रमेवं परित्यजे(द्याजये)त् ॥
विमाने त्रिगृहे वाऽपि मण्डपादीनि(दौच)वास्तुके ।

ग्रामादीनां च सर्वेषां मानयेन्मानसूत्रकम् ॥
तत्प्रमाणस्य परितो हस्तद्विहस्तम(म)धिकम् ।
तत्तत्सूत्रावसाने च शङ्कुमेवं प्रतिष्ठितम् ॥
गर्भसूत्रस्य कर्णैश्च द्विद्विशङ्कु निखानयेत् ।
चतुर्दिक्षु चतुःशङ्कु जन्मनिष्क्रमणार्थम् ॥
चतुष्कर्णैश्च कर्णैश्च चतुःशङ्कु(ङ्कु)समायुतम् ।
एवं महार्थकम् कुर्याच्छङ्कु दारु प्रवक्ष्यते ॥
खदिरं चादिमेदं च मधूकं क्षीरिणी तथा ।
अन्यैश्च सारवृक्षैर्वा खातं(त) शङ्कु रिति स्मृतम् ॥
एकविंशाङ्गुलं वाऽपि चैकपञ्च (पञ्चविंश) त्यङ्गुलायतम् ।
खातं शङ्कुमिदं मुष्टिमानं तत्परिणाहकम् ॥
मूलं तु सूचिवत्कुर्यान्मूला:(द)ग्रक्षयक्रमात् ।
गृहीत्वा वामहस्तेन स्थपतिस्थापकावुभौ ॥
शङ्कुदक्षिणहस्तेन लोष्ट(ष्टं)संगृह्य ताडयेत् ।
प्रत्येकमष्टसंख्या च प्राङ्मुखो वाप्युदङ्मुखः ॥
शङ्कुस्थापनकाले तु ब्राह्मणैः(णः)स्वस्तिवाचक(न)म् ।
कुर्यान्मङ्गलघोषैश्च समज्यां(माज्यः)पूजयेत्ततः ॥
एवं नैर्ऋतिकोणे तु(णादी)स्थपत्याद्यश्च तक्षकम्(कः) ।
पश्चान्मङ्गलघोषैश्च सर्वशङ्कुः(ङ्कून्)प्रहारयेत् ॥

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शङ्कुं कलाङ्गुलायामं नाहं तत्सत्यमुच्यते ।
मूलताराष्टभागैकं हीनाग्रमति(वि)शालकम् ॥
सुवृत्तमर्जयेश(च्छ)ङ्कु सारवृक्षं विशेषतः ।
शङ्कु द्विगुणमानेन तन्मध्ये मण्डलं लिखेत् ॥
तन्मध्ये स्थापयेच्छङ्कु चतुर्दिक्षु विशेषतः ।
पूर्वापराह्णयोश्छाया यदि तौ मण्डलान्तकौ ॥
छायाग्रमध्यं संलक्ष्यं तथैव त्वपराह्णके ।
विन्दुद्वयान्तरं सूत्रं पूर्वापरादिगिष्यते ॥
तयोर्विन्द्वान्तरग्राह्यं यच्चापराननपुच्छकम् ? ।
दक्षिणोत्तरगं सूत्रं तन्मध्ये तु प्रसारयेत् ॥
येन मध्यममाधातुं ह्यपच्छायाङ्गुलं व्रजेत् ।
मण्डलं कुञ्जतालेन ह्यङ्गुलं तु विभाजयेत् ॥
भानुर्मीनाष्टविंशांशं सप्तविंशांशयोस्तरे ।
गते त्वजंवनत्युक्ता कन्यायां च तथैव हि ॥
मीनेऽष्टविंशदेशं हि भागं प्रत्यर्धमातृकम् ।
वर्धयेन्मिथुने सप्तविंशदेशावसानके ॥

ततोत्रि(ति)मात्रं क्षीणं स्याद्भागं प्रति विशेषतः।
कन्यायां छन्द्रविंशांशं तद्भागांशविवर्धनात् ॥
छायोऽष्टविंशदं शान्तं ततो हासं तथैव हि।
छायावृद्धिं च्यं चैव कृत्तिकांशं खु(कु)मध्यमम् ॥
छायामानं व्रजेन्मध्ये ब्रह्मसूत्रं प्रसारयेत्।
पूर्वापराह्णयोश्छाया मध्ये मानं च वर्जयेत् ॥
प्रागादिपरितं सूत्रमिष्टमाने तु विन्यसेत्।

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साचे शङ्कुमिनाङ्गुलं समतले कृत्वा पृथक्कालज-
च्छायाग्रार्चितत्रिविन्दुपरिवृत्तयोत्पाद्य मत्स्यद्वयम्।
तत्सौपुच्छसिरोरथसूत्रयुगयोगाच्छङ्कुनाड्यन्तिमं
सूत्रं न्यस्य सुसाधयेद् यमधनेशाशे ततश्चेतरे ॥

टि०—दिङ्निर्णय एव प्लवविचारस्य प्रासङ्गिकत्वात् प्लवपरीक्षा यथाः—

वा० वि० २. २-२४½

सुवः प्लवं प्रवक्ष्यामि नराणां च शुभाशुभम्।
पूर्वप्लवा वृद्धिकरी ह्युत्तरा धनदा स्मृता ॥
अर्थक्षयकरीं विद्यात् पश्चिमप्लवनां ततः।
दक्षिणप्लवना पृथ्वी नराणां मृतिदा भवेत् ॥
वारुणोच्चसमायुक्ता नीचमाहेन्द्रसंयुता।
गोवीथिरिति सा ज्ञेया ऐन्द्रोच्चानीचवारुणा ॥
जलवीथिरिति प्रोक्ता वास्तुज्ञानविशारदैः।
सौमोच्चा यमनीचा च यमवीथीति कथ्यते ॥
यमोच्चसोमनीचा च गजवीथीति कथ्यते।
ईशोच्चं निर्ऋतिनीचं भूतलं भूतवीथिकम् ॥
आग्नेयोच्चं वायुनीचं नागवीथी प्रशस्यते।
वायूच्चमग्निनीचं यद् वीथीं वैश्वानरीं विदुः ॥
निर्ऋत्युच्चमीशनीचं धनवीथीत्युदाहृतम्।
इन्द्राग्न्यन्तरमुच्चं स्यान्नीचं वरुणवातयोः ॥
वास्तु पैतामहं विद्यान्नराणां कुरुते शुभम्।
याम्याग्न्यन्तरमुच्चं स्यान्नीचं मारुतसोमयोः ॥
सुपथं नाम तद्वास्तु प्रशस्तं सर्वकर्मणाम्।
सोमेशानान्तरं नीचमुच्चं निर्ऋतिकालयोः ॥
दीर्घायुर्नाम तद्वास्तु प्रशस्तं कुलवर्धनम्।
ईशानेन्द्रान्तरं नीचमुच्चं वरुणरक्षसोः ॥
पुण्यकं नाम तद्वास्तु द्विजानां च शुभावहम्।
इन्द्राग्न्योरन्तरं नीचमुच्चं वायुजलेशयोः ॥

अपथं नाम तद्वास्तु वैराय कलहाय च ।
कालाग्न्योरन्तरं नीचमुच्चं स्याद् वायुसोमयोः ॥
रोगकृन्नाम तद्वास्तु नराणां रोगवृद्धिकृत् ।
निर्ऋत्यन्तकयोर्नीचमुच्चं सोमशिवान्तरम् ॥
अर्गलं नाम तद्वास्तु ब्रह्महत्यादिनाशकृत् ।
रुद्रेन्द्रान्तरमुच्चं स्यान्नीचं वरुणरक्षसोः ॥
श्मशानं नाम तद्वास्तु केवलं कुलनाशनम् ।
नीचमग्नौ भवेदुच्चं निर्ऋतीशानवायुषु ॥
श्येनकं नाम तद्वास्तु नाशाय मरणाय च ।
रुद्राग्निवरुणेषूच्चं नीचं स्यान्निर्ऋतौ तथा ॥
श्वमुखं नाम तद्वास्तु दारिद्र्यं कारयेत् फलम् ।
निर्ऋत्यग्निशिवेषूच्चं नीचं रवीन्द्रयोस्तथा ॥
ब्रह्मघ्नं नाम तद्वास्तु नेष्टं प्राणभृतां सदा ।
अग्नौ यदि भवेदुच्चं नीचं निर्ऋतिरुद्रयोः ॥
वातनिम्नं च तद्वास्तु स्थावरं नाम शोभनम ।
उच्चं निर्ऋतिभागे स्यान्नीचं ज्वलनवातयोः ॥
रुद्रनिम्नं च तद्वास्तु स्थण्डिलं नाम शोभनम् ।
रुद्रोच्चं यदि निम्नं स्याद् वह्नौ निर्ऋतिवातयोः ॥
शाण्डुलं नाम तद्वास्तु प्रापयत्यशुभं सदा ।
निर्ऋत्यग्निशिवेषूच्चं नीचं चन्द्रमसं प्रति ॥
द्विजेन्द्राणां तु सुस्थानमवनी समुदाहृता ।
नीचमिन्द्रे भवेदुच्चं निर्ऋत्यां पश्चिमानिले ॥
सुलभं नाम तद्वास्तु राजराष्ट्रविवर्धनम् ।
सौम्येशपवनेषूच्चं नीचं भवति चेद् यमे ॥
नाम्ना वास्तुचरं नाम वैश्यानां तदभीष्टदम् ।
नीचं वारुणमुच्चं चेदीशानेन्द्राग्निषु क्रमात् ॥
श्वमुखं नाम तद्वास्तु शूद्राणां तदभीष्टदम् ॥

वास्तुपदानि—

1. स० सू० १३.१ प्रमुखवास्तुभेदाः एकाशीतिपदवास्तु ११.१–१४

एकाशीतिपदं यत् स्यात् तथा शतपदञ्च यत् ।
चतुःषष्टिपदं यच्च वास्तुरत्नं त्रिधोदितम् ॥
चतुरश्रीकृते क्षेत्रे विभक्ते नवधा ततः ।
मध्ये महाद्युतिर्ब्रह्मा विधेयो नवभिः पदैः ॥
तस्मादनन्तरं प्राच्यां षट्पदः कीर्तितोऽर्यमा ।
आग्नेयकोणे सवितृसावित्रौ पदिकावुभौ ॥

ब्रह्मणोऽनन्तरं याम्ये विवस्वान् षट्पदाश्रितः।
नैर्ऋते पदिकौ कोणे जयेन्द्रौ कथिताबुभौ॥
षट्पदः स्यात् ततो मित्रः काष्ठायां पत्युरम्भसः।
कोणे परोत्तरे यक्ष्मा रुद्रश्च पदिकावुभौ॥
षड्भिः पदैस्ततः सौम्ये निश्चलः पृथिवीधरः।
आपस्तथापवत्सश्च पदिकावीशदिग्गतौ॥
इत्यन्तःसंश्रयान् देवान् प्रोक्तान्ब्रूमो बहिः स्थितान्।
ज्ञेयं प्रदक्षिणं तेषां स्थानं पूर्वोत्तरादितः॥
अग्निस्तदनु पर्जन्यो जयन्तश्चेन्द्र एव च।
रविः सत्यो भृशश्चेति नभस्तस्मात् ततोऽनिलः॥
पूषाख्यो वितथाख्यश्च गृहक्षतयमावथ।
गन्धर्वो भृङ्गराजश्च मृगः पितृगणस्ततः॥
दौवारिकोऽथ सुग्रीवः पुष्पदन्तो जलेश्वरः।
असुरः शोषनामा च पापयक्ष्मा ततः परम्॥
रोगो नागश्च मुख्यश्च भल्लाटः सोम एव च।
चरकोऽथादितिर्दैत्यमातेति पददेवताः॥
रवेर्वायोः पितृणां च व्याधेश्चैव क्रमाद् बहिः।
चरकी च विदारी च पूतना पापराक्षसी॥
पदभोगोऽस्ति नैतासां स्थानमेव हि केवलम्।
पदभोगमथ ब्रूमो बहिःस्थानां नभःसदाम्॥
तत्राष्टौ द्विपदाधीशा जयन्तो भृश एव च।
वितथो भृङ्गसुग्रीवशोषमुख्यास्तथादितिः॥
एभ्यः शेषा बहिर्ये तु ते स्युःपदभुजः सुराः।
एकाशीतिपदे प्रोक्तो देवतानां पदक्रमः॥

शतपदवास्तु
११.१५–२०

चतुरश्रीकृते क्षेत्रे दशधा प्रविभाजिते।
भवेच्छतपदो वास्तुर्ब्रूमोऽत्राप्यमरस्थितिम्॥
द्विरष्टगुणितं मध्ये पदमेकं पितामहः।
भुङ्क्ते शतपदे वास्तौ चतुर्गुणितमर्यमा॥
विवस्वतोऽथ मित्रस्य तद्वच्च पृथिवीभृतः।
भोगमिच्छन्ति वै तेषामर्यम्ण इव सूरयः॥
सवित्राद्यापवत्सान्ता ये च प्रोक्ताः सुरोत्तमाः।
यथैकाशीतिके तद्वत् तेषां भोगः पदाष्टकम्॥
अग्न्यन्तरिक्षपवना मृगश्च पितरोऽपि च।
रोगो दितिस्तथाध्यर्धपदभाजो बहिः स्थिताः॥
चतुर्विंशतिरुक्ता ये पर्जन्याद्याः सुरोत्तमाः।

आदित्यन्वा द्विपदिकास्ते शेषं प्राक् प्रसाधितम् ॥

चतुष्षष्टिपदवास्तु
११. २१—३०

चतुरश्रीकृते क्षेत्रे पूर्ववद् भाजितेऽष्टभिः ।
चतुः षष्टिपदो वास्तुश्चतुःषष्ट्या पदैर्भवेत् ॥
अस्मिन् पदानि चत्वारि भुनक्त्यन्तः पितामहः ।
अर्यमाद्याः सुराश्चान्ते द्वे द्वे मध्यगताः पदे ॥
मध्येऽष्टौ बाह्यतोऽष्टौ ये स्थिताः कोणेषु चाष्टसु ।
ये देवाः सर्व एकत्र ते पदार्धभुजः स्मृताः ॥
पर्जन्योऽथ भृशः पूषा भृङ्गदौवारिकौ तथा ।
शोषनागादितिप्रान्ताः स्युरध्यर्धपदस्पृशः ॥
जयन्तादिषु बाह्येषु चरकान्तेषु कीर्तिता ।
प्रत्येकं षोडशस्त्वत्र सुरेषु द्विपदस्थितिः ॥
सिरां बहिः पदादूर्ध्वं नयेत् पितृपदान्ततः ।
बाह्याशानिर्गतां चैनां रोगनामानमानयेत् ॥
द्विनाम्नः प्रापयेद् भृङ्गं भृङ्गात् सुग्रीवमानयेत् ।
ततोऽदितिं तां गमयेद् द्विनामानं प्रवेशयेत् ॥
सौराद् याम्यं पदं नीत्वा वारुणं प्रापयेत् ततः ।
नयेत् पदं ततः सौम्यं तत आदित्यमानयेत् ॥
भृशादानीय वितथं शोषाख्यं वितथादथ ।
शोषान्मुख्यं समानीय नयेत् तस्मात् पुनर्भृशम् ॥
ये विभागाः समुद्दिष्टा यथासङ्ख्येन तैरिह ।
यज्ञामरनृणां वास्तुं समस्तं विभजेत् सुधीः ॥

शतपद-चतुष्षष्टिपद-
वृत्तवास्तु
१२. १३—१६

अथोच्यते वृत्तवास्तु वृत्तप्रासादहेतवे ।
एकश्चतुःषष्टिपदभागः शतपदोऽपरः ॥
अष्टधा भाजिते वृत्तविष्कम्भे भागिकान्तरान् ।
चतुरः परिधीन् कुर्यान्मध्यवृत्तं द्विभागिकम् ॥
स्याद्बहिर्वृत्तवलयमष्टाविंशतिभागिकम् ।
तदन्तर्वृत्तवलयमष्टाष्टांशोज्झितं क्रमात् ॥
एवं कृते भवेन्मध्ये ब्रह्मणस्तच्चतुष्पदम् ।
इत्थं चतुःषष्टिपदो वृत्तवास्तुरुदाहृतः ॥
दशधा भाजिते वृत्तविष्कम्भे भागिकान्तराः ।
कार्याः परिधयः पञ्च मध्ये वृत्तं द्विभागिकम् ॥
बहिस्थं वलयं तस्य भजेत् षट्त्रिंशता ततः ।
शेषं चतुःषष्टिपदस्थित्या स्याच्छतवास्तुनि ॥
देवतापदसङ्क्षिप्तिरनयोश्चतुरश्रवत् ।
एवं कार्यवशात् कार्या वास्तवोऽन्येऽपि धीमता ॥

द्व्यश्रादिवास्तुपद १२. २०—२१

द्व्यश्रे षडश्रे चाष्टाश्रे षोडशाश्रे च वृत्तवत्।
वृत्तायतेऽर्धचन्द्रे च वास्तौ पदविभाजनम्॥
एक एव पुमानेषु बहुधा परिकल्पितः।
सर्वस्मिन्नपि संस्थाने विभक्ते लक्षयेत् ततः॥

स्तुपुरुषो विकल्पना १४. १—१२

देवतानां पदैरित्थं संविभक्तैः पृथग्विधैः।
स्थपतिः प्रयतः कुर्याद् वास्तुमित्थंपुमाकृतिम्॥
शिरस्तस्याग्निरुद्दिष्टं दृष्टिर्दित्यम्बुदाधिपौ।
जयन्तश्चादितिश्चास्य कर्णौ वायुर्मुखे स्थितः॥
अर्कः स्याद् दक्षिणे वामे भुजे सोमः प्रतिष्ठितः।
महेन्द्रचरकौ सापवत्सावस्योरसि स्थितौ॥
स्तनेऽर्यमा दक्षिणे स्याद् वामे च पृथिवीधरः।
यक्ष्मा रोगश्च नागश्च मुख्यो भल्लाट इत्यमी॥
दक्षिणेतरमेतस्य बाहुं देवाः समाश्रिताः।
सत्यो भृशो नभो वायुः पूषा चेत्यथ दक्षिणम्॥
पञ्चापि बाहुमेतस्य संश्रितास्त्रिदिवौकसः।
सावित्रसवितारौ च रुद्रशक्तिधरावपि॥
चत्वारोऽमी कलाः फोणिस्थाः करयोर्हृदि च स्वभूः।
वितथौकःक्षतौ पार्श्वे दक्षिणेऽस्य व्यवस्थितौ॥
वामे पुनः स्थितावस्य देवौ शोषासुराभिधौ।
मित्राभिधो विवस्वांश्च द्वावप्युदरमाश्रितौ॥
मेढ्रमध्यस्थितावस्य सुराविन्द्रजयाभिधौ।
यमश्च वरुणश्चोर्वोः क्रमाद् दक्षिणवामयोः॥
गन्धर्वभृङ्गौ सम्मृगौ जङ्घां सव्यामथेतराम्।
द्वास्थसुग्रीवपुष्पाख्याः संश्रिताः पितरोऽङ्घ्रिशः॥
एकाशीतिपदस्येशदिग्विभागाश्रितं शिरः।
माहेन्द्रीसंश्रितं विद्याच्चतुःषष्टिपदस्य तु॥
एकाशीतिपदाज्जातो वास्तुः शतपदाभिधः।
यः षोडशपदः स स्याच्चतुष्षष्टिपदोद्भवः।

पुरुषाङ्गदेवता—निघण्टु १४. १३—२४

मध्ये य एव देवानां स्थितो ब्रह्माब्जसंभवः।
स सहस्राननोऽचिन्त्यविभवो जगतां प्रभुः॥
योऽयं वह्निरिहोक्तः स सर्वभूतहरो हरः।
पर्जन्यनामा यश्चायं वृष्टिमानम्बुदाधिपः॥
जयन्तस्तु द्विनामाख्यः कश्यपो भगवानृषिः।
महेन्द्रस्तु सुराधीशो दनुजानां विमर्दनः॥
आदित्यं पुनरिच्छन्ति विवस्वन्तमहस्करम्।

सत्यो भूतहितो धर्मो वृषः कामोऽथ मन्मथः॥
योऽन्तरिक्षः स्मृतो देवस्तन्नभः समुदाहृतम्।
मारुतो वायुरुद्दिष्टः पूषा मातृगणः स्मृतः॥
अधमो वितथाख्यः स्यात् कलेरप्रतिमः सुतः।
गृहक्षतः पुनर्योऽत्र स चन्द्रतनयो बुधः॥
प्रेताधिपो मतः श्रीमान् यमो वैवस्वतश्च सः।
गन्धर्वो भगवान् देवो नारदः परिकीर्तितः॥
भृङ्गराजमिहेच्छन्ति राक्षसं निरृतेः सुतम्।
यो मृगोऽस्मिन्ननन्तः स स्वयंभूर्धर्म इत्यपि॥
पितरस्तु स्मृता देवाः पितृलोकनिवासिनः।
स्मृतो दौवारिको नन्दी प्रमथानामधीश्वरः॥
आदिः प्रजापतिः स्रष्टा मनुः सुग्रीव ईरितः।
पुष्पदन्तस्तु विनतातनयः स्यान्महाजवः॥
वरुणः पाथसां नाथो लोकपालः स कीर्तितः।
असुरो राहुरर्केन्दुमर्दनः सिंहिकात्मजः॥
शोषस्तु भगवानेष सूर्यपुत्रः शनैश्चरः।
पापयक्ष्मा क्षयः प्रोक्तो रोगस्तु कथितो ज्वरः॥
भुजङ्गमानामधिपः श्रीमान् नागस्तु वासुकिः।
त्वष्टा स्यान्मुख्यसंज्ञोऽत्र विश्वकर्माभिधश्च सः॥
चन्द्रो भल्लाट इत्युक्तः कुबेरः सोमसंज्ञितः।
चरको व्यवसायाख्यः श्रीरिहादितिसंज्ञिका॥
दितिरत्रोच्यते शर्वः शूलभृद् वृषभध्वजः।
हिमवानाप इत्युक्त आपवत्स उमा स्मृता॥
आदित्यस्त्वर्यमा वेदमाता सावित्र उच्यते।
देवी गङ्गात्र विद्वद्भिः सवितेति प्रकीर्तिता॥
मृत्युः शरीरहर्तासौ विवस्वानिति स स्मृतः।
जयाभिधस्तु वज्रीति स्यादिन्द्रो बलवान् हरिः॥
मित्रो हलधरो माली रुद्रस्तूक्तो महेश्वरः।
राजयक्ष्मा गुहः प्रोक्तः क्षितिश्चोऽनन्त उच्यते॥
चरकी च विदारी च पूतना पापराक्षसी।
रक्षोयोनिभवा ह्येता देवतानुचरीर्विदुः॥
इत्येष वास्तुदेवानां नियण्टुः परिकीर्तितः।
क्षो मूर्ध्नि हो ह्योर्मध्ये लो घ्राणे चिबुके तु षः॥
शः कण्ठे हृदये वः स्याल्लकारो नाभिदेशगः।
रेफो वस्तौ यकारस्तु मेढ्रे मः (पुष्पः) मुष्ककावुभौ॥

नकार ऊरुणी जानुकारः पिण्डिकाश्रितः ।
(ङः) ङकारो गुल्फयोरन्ते पकारोऽङ्घ्रितले स्मृतः ॥

तस्यनाड्यादि— सिरादि विकल्पा तत्र गृहनिर्माणे त्याज्यस्थानानिच १२. २२—३७१

शरीरं वास्तुपुंसोऽस्य गुणदोषा भवन्ति यत् ।
मुखं मूर्धा ततः श्रोत्रे दृक्तालव्वोष्ठरदाः क्रमात् ॥
वक्षः कण्ठः स्तनो नाभिर्मेढ्रमुष्कावथो गुदम् ।
बाहू च प्रबाहू पाणी स्फिगूरुजङ्घापदद्वयम् ॥
कल्पयेदेवमेतेन स भवेत् पुरुषाकृतिः ।
सिरावंशानुवंशाश्च सन्धयः सानुसन्धयः ॥
मर्माण्यथ महावंशा लक्ष्या वास्तुशरीरगाः ।
सिराः कर्णगता याः स्युस्ता नाड्यः परिकीर्तिताः ॥
पदस्य षोडशो भागस्तत्प्रमाणं प्रकीर्तितम् ।
महावंशौ प्रावप्रतीच्यौ याम्योदीच्यौ च मध्यगौ ॥
प्रमाणं पञ्चमो भागः पदस्योदाहृतं तयोः ।
वंशास्तेऽस्मिन् समुद्दिष्टा रेखा याः स्युर्मुखायताः ॥
यास्तिर्यगायता रेखास्तेऽनुवंशाः प्रकीर्तिताः ।
सम्पाता ये स्युरेतेषां मर्म तत् संप्रचक्षते ॥
उपमर्माणि तान्याहुः पदमध्यानि यानि हि ।
भागोऽष्टमोऽथ दशमो द्वादशः षोडशोऽपि च ॥
पदतो भागमिष्टं स्याद् वंशादीनामनुक्रमात् ।
वंशाष्टकस्य यः सन्धिः स सन्धिरिति कीर्तितः ॥
ये पुनः स्युस्तदङ्गानां प्रोक्तास्ते चानुसन्धयः ।
वालाग्रतुल्यं सन्धीनां प्रमाणं परिचक्षते ॥
तदर्धमनुसन्धीनां प्रमाणं समुदीरितम् ।
यत्नेनैतानि सन्त्यज्य वास्तुविद्याविशारदः ॥
द्रव्याणि प्रयतो नित्यं स्थपतिर्विनिवेशयेत् ।
महावंशस्य नाक्रान्तिं कुर्याद् द्रव्येण केनचित् ॥
इतरेषु पुनर्द्रव्यं मध्यवंशेषु सन्त्यजेत् ।
महावंशसमाक्रान्तौ भवेत् स्वामिवधो ध्रुवम् ॥
वर्षेण तपनाद् भीतिं वंशानां पीडनाद् विदुः ।
उपमर्माणि रोगाय मर्माणि कुलहानये ॥
उद्वेगायार्थनाशाय सिराश्च स्युः प्रपीडिताः ।
कलिः स्यात् सन्धिविद्धेषु पीडितेष्वनुसन्धिषु ॥
तस्मादेतानि सर्वाणि पीडितान्युपलक्षयेत् ।
ज्ञात्वा सिराः सानुसिराश्च नाडीवंशानुवंशानपि वास्तुदेहे ।
यत्नेन मर्माणि फलानि चैषां वेधं त्यजेद् यस्तमुपैति नापत् ॥

वास्तुपदप्रयोगः
१३. ३—४

वर्णिनां भवनादीनि निवेशा राजवेश्मनाम्।
एकाशीतिपदेनेन्द्रस्थानं च विभजेत् सुधीः॥
प्रासादा विविधास्तद्वद् विचित्राश्राश्च मण्डपाः।
तान् मापयेच्छतपदप्रविभागेन बुद्धिमान्॥
यः पुनः स्याच्चतुःषष्टिपदस्तेन विभाजयेत्।
नरेन्द्रशिविरग्रामखेटादि नगरादि च॥

मर्माणि तेषां पीडनफलं च
१३. ६—२३½

अन्तस्त्रयोदश सुरा द्वात्रिंशद् वाह्यतश्च ये।
तेषां स्थानानि मर्माणि सिरा वंशाश्च तेषु तु॥
मुखे हृदि च नाभौ च मूर्ध्नि च स्तनयोस्तथा।
मर्माणि वास्तुपुंसोऽस्य षण्महान्ति प्रचक्षते॥
वंशानुवंशसम्पाताः पदमध्यानि यानि च।
देवस्थानानि तान्याद्ये पदषोडशकान्विते॥
देवस्थानानि सम्पाताश्चतुःषष्टिपदे पुनः।
तथैकाशीतिपदिके पदान्तशतिकेऽपि च॥
चतुर्ष्वपि विभागेषु सिरा याः स्युश्चतुर्दिशम्।
मर्माणि तानि चोक्तानि द्वारमध्यानि यानि च॥
भित्तिविस्तृतमध्येन यद्वा मध्येन दारुणः।
मर्म यत् पीड्यते येन गृहे तत्रोच्यते फलम्॥
द्वारैर्वा भित्तिभिर्वापि मर्मणां परिपीडनात्।
दौर्गत्यं गृहिणः प्राहुः कुलहानिमथापि वा॥
भवेत् स्वामिवधः स्तम्भैस्तुलाभिः स्त्रीपरिक्षयः।
स्नुषावधो जयन्तीभिर्बन्धुनाशश्च सङ्ग्रहैः॥
मर्मस्थानक्षयैः कायैर्भर्तुः कायो निपीड्यते।
सुहृद्विश्लेषमिच्छन्ति सन्धिपालैश्च तद्विदः॥
नागपाशैर्धनोच्छेदो नागदन्तैः क्षयमादिशेत्॥
षड्दारुकाजानुसिरागवाक्षालोकनानि च।
मर्ममध्योपगान्येतान्यावहन्ति धनक्षयम्॥
द्वारद्रव्यतुलास्तम्भनागदन्तगवाक्षकैः।
नृपदण्डभयं पत्युः पीडनं च प्रचक्षते।
द्वारमध्येषु षड्दारुमध्येष्वपि च सूरयः॥
कर्णद्रव्यादिभिर्विद्धेष्वेतदेव फलं विदुः।
शय्यानुवंशविहिता गृहिणां कुलनाशिनी॥
क्षयावहा नागदन्ता भर्तुः शय्यान्विता नगाः।
वातायनैरथ स्तम्भैर्ये विद्धा नागदन्तकाः॥
ते शस्त्रभीतिदा भर्तुर्यद्वा चौरभयप्रदाः।

द्रव्यधान्यविनाशाय शोकाय कलहाय च ॥
गृहमध्यगतं द्वारं भवेत् स्त्रीदूषणाय च ।
द्रव्येणान्यतरेणापि महामर्म निपीडितम् ॥
भवेत् सर्वस्वनाशाय गृहिणो मरणाय च ।
अंशुकाश्चोर्ध्ववंशाश्च तुम्बिकाः सेन्द्रकीलकाः ॥
पुष्पप्रासादगेहानां वेधेऽप्येते न दोषदाः ॥

अ० पृ०
वास्तुभेदाः
५७. १—७

स्वस्तिकं पुष्पकं नन्दं षोडशाक्षं चतुर्थकम् ।
पञ्चमं कुलतिलकं सुभद्रं षष्ठमेव च ॥
सप्तमो मरीचिगणो भद्रकं स्यात्तथाष्टमम् ।
नवमं कामदं प्रोक्तं दशमं भद्रमुच्यते ॥
सर्वतोभद्रनामाख्यमतऊर्ध्वं न कारयेत् ।
वास्तून्येकादशैव स्युः प्रोक्तानि परमेश्वरैः ॥
पदमेकं स्वस्तिकं स्यात्पुष्पकं च चतुष्टयम् ।
नन्दं नवपदं प्रोक्तं षोडशं षोडशपदैः ।
पञ्चविंशतिभिः कुलं षट्त्रिंशद्भिः सुभद्रकम् ।
एकोनपञ्चाशत्पादैर्मरीचिगण उच्यते ॥
भद्रकं तु चतुःषष्टिरेकाशीतिश्च कामदम् ।
शतपदैस्तु भद्राख्यं सहस्रैः सर्वतोद्भवम् ॥
पदसङ्ख्यास्तु कथिता वास्तुस्थानानि वच्म्यहम् ।
स्वस्तिकं पदसंस्थाने ध्रुवतः कथ्यते बुधैः ॥

तेषां प्रयोगाः
५७. ८—२३

श्रीधरं राजगेहानां हर्म्यादीनां ध्रुवं यथा ।
चतुष्की देवताग्रे या विद्यारम्भे तत्स्वस्तिकम् ॥
दीक्षा विविधयात्रासु कन्यालग्ने च पुष्पकम् ।
नन्दं प्रपूजयेद्वास्तु वनयात्रादिशोभनम् ॥
लतिने रुचकादीनां मण्डपेषु गृहादिके ।
जगती वसुधायुक्तं षोडशाख्यं तु पूजयेत् ॥
दक्षिणोत्तरपट्टकाद्यं शक्राद्यं कमलोद्भयम् ।
श्रीमात्रादिषु दीक्षासु तिलकं तु प्रपूजयेत् ॥
सुकर्मणि च प्रस्थाने सुभद्रं च प्रशस्यते ।
समस्तजीर्णोद्धारेषु मरीचिगणमर्चयेत् ॥
ग्रामखेटपुराद्यौ च कूपे च कर्वटादिके ।
तथा राजनिवेशे च भद्रकं पूजयेत्सदा ॥
गृहादिषु समस्तेषु तृणपटच्छन्दादिषु ।
पाण्डुरस्वपूर्णखण्डेषु कामदं वास्तु पूजयेत् ॥
प्रासादा विविधाश्चैव विविधाश्चात्र मण्डपाः ।

जगतीलिङ्गपीठे च भद्राख्यं राजवेश्मान ॥
प्रासादाश्चैव मेर्वाद्या लिङ्गं षट्करतः परम् ।
महार्था देशराष्ट्रे च सर्वतोभद्रमर्चयेत् ॥
अधस्तात् सर्वतोभद्राद् भद्राख्योपरि वास्तुकम् ।
मध्ये च द्वाविंशतिभिर्गुणिता पदकल्पना ॥
षट्क्षेत्राणि प्रवक्ष्यामि वास्तुपदनिवासिनाम् ॥
संस्थानोन्मानसूत्रं च वास्तुवेदसमुद्भवम् ।
चतुरश्रमायतं च वृत्तं वृत्तायतं तथा ॥
अष्टाश्रं चार्धचन्द्रं च वास्तुसूत्रं तु षड्विधम् ॥
प्रासादेषु गृहाद्येषु पुरग्रामनिवेशने ।
क्षेत्राणि चतुरश्राणि चतुरश्रं समर्चयेत् ॥
तथायताश्च प्रासादाः पुष्पाद्यकुलसम्भवाः ।
यथायतानि क्षेत्राणि पूजयेच्च तथायतम् ॥
वापीकूपक्षेत्रकाणि वृत्तानि प्रतिमास्तथा ।
कैलासच्छन्दोद्भवाश्च सर्वे वृत्ताः प्रकीर्तिताः ॥
वृत्तायताश्च मणिका अष्टशाला अष्टाश्रकाः ।
तडागेषु समस्तेषु ह्यर्धचन्द्रं प्रपूजयेत् ॥

देवतानां सामान्य-स्थितिः ५७ २४—२२

क्षेत्रषट्कात्मके वास्तौ बाणवेदाश्च देवताः ।
त्रयोदश स्थिता मध्ये द्वात्रिंशद् बाह्यतस्तथा ॥
सूत्रबाह्येऽष्टदेव्यश्च ईशादिषु प्रदक्षिणम् ।
तासां पदविधिर्नास्ति केवलं पूजनं स्मृतम् ॥

तेषां पदभोगाः ५८. २८—३५

ईशस्तथा च पर्जन्यो जयो माहेन्द्र एव च ।
आदित्यः सत्यभृशौ चान्तरिक्षान्ताष्ट पूर्वतः ॥
अग्निः पूषा च वितथो गृहक्षतो यमस्तथा ।
गन्धर्वो भृङ्गराजश्च मृगान्तश्चाष्ट दक्षिणे ॥
पितरो दौवारिकश्च (श्चापि) सुग्रीवः पुष्पदन्तकः ।
वरुणश्चासुरः शोषः पापयक्ष्मा तु पश्चिमे ॥
रोगो नागस्तुमुख्यश्च भल्लाटः सोम एव च ।
गिर्यदितिर्दितिश्चैवाष्टावुत्तरदिशि क्रमात् ॥
ब्रह्मकर्णौ तथा चाष्टावीशान्यादि क्रमेण तु ।
आपश्चैवापवत्सश्च ईशकर्णे तु संश्रितौ ॥
सविता चैव सावित्री आग्नेय्यां तु समाश्रितौ ।
इन्द्र इन्द्रजयश्चैव नैरृत्यां ब्रह्मणः स्थितौ ॥
रुद्रश्च रुद्रदासश्च संस्थितौ वायवीदिशि ।
मरीचिश्च विवस्वांश्च मित्रश्च पृथिवीधरः ॥

वास्तुमर्मोपमर्म-
निर्णयः
४६. १—१८

पूर्वादिक्रमयोगेन संस्थिताश्च चतुर्दिशम् ।
एवमादिक्रमयोगः सर्वेषां वास्तुमण्डले ॥
चतुष्षष्टिपदैः क्षेत्रे पुरवास्तु प्रकल्पयेत् ।
मर्मोपमर्मसन्धींश्च वास्तुदेहसमुद्भवान् ॥
पूर्वापरायता वंशा उपवंशाः प्रभेदतः ।
मर्माणि वंशसम्पाता उपमर्माणि मध्यतः ॥
इन्द्रादित्यतस्त्रिरेखा वरुणपुष्पदन्तगाः ।
एते वंशाः समाख्याता उपवंशा याम्योत्तराः ॥
सोमभल्लाटतस्तिस्रो गृहक्षतयमान्तगाः ।
पूर्वापरायता रेखाः पुनर्भिन्नाश्च तिसृभिः ॥
ईशब्रह्मपितृतश्च शिरा रोगाग्निमध्यतः ।
शिरास्त्वेवं विकर्णस्था ईशाग्निपितृरोगतः ॥
जयगन्धर्वसुग्रीवगिरिभिश्च प्रभेदिताः ।
सत्यमुख्यायता रेखा वितथाच्चासुरान्तगाः ॥
एते च सूत्रसंपाता महामर्माणि कीर्तिताः ।
सूत्रसंपाताग्रपङ्क्ति पट्कं लाङ्गलमुच्यते ॥
शिरासूत्रपातपट्कं तच्चापि लाङ्गलं स्मृतम् ।
चतुर्विंशति लाङ्गलानि पदार्धेषु त्रिकोणगाः ॥
ब्रह्मणश्च चतुःपार्श्वेष्वष्टसूत्राणि पञ्चकम् ।
पक्षेषु लाङ्गलं द्वंद्वं षड्रेखाभिर्विधीयते ॥
चतुःकर्णेषु शूलानि षड्रेखाभिश्च वज्रकम् ।
त्रिशूललाङ्गलपङ्क्तिशिरानाडीविवर्जितम् ॥
वन्धूच्छेदश्चोपवंशे मर्मणि स्यात्कुलक्षयः ।
वज्रे च वज्रपाताः स्युस्त्रिशूले च रिपोर्भयम् ॥
पङ्क्तौ पतिविनाशश्च लाङ्गलेषु प्रजाक्षयः ।
कर्णशिरा (स्त्रीविनाशः सम्पाते चाग्रजातके ॥
चतुषु ब्रह्मकर्णेषु महामर्म सुकीर्तितम् ।
धनधान्यविनाशश्च सर्वनाशस्तथैव च ॥
पदन्यासषोडशांशो भागो द्वादशकः पुनः ।
बालाग्रं सन्धिसम्पाते वर्ज्यते मर्मशिल्पिभिः ॥
अष्टौ वर्गाः समाख्याताः कर्णपार्श्वाश्च कीर्तिताः ।
ब्रह्मकर्णे त्रिपद्मान्ते ? महामर्मचतुष्टयम् ॥
मर्मोपमर्मणी रक्ष्ये महादोषभयावहे ।
वंशोपवंशौ सन्धिश्च रेखापट्कं च लाङ्गलम् ॥
भूपरिग्रहो वास्तुश्च मर्मादि कथितं तव ।

पित्रोर्घातो भवेच्चैवं कृते शिरसि खातके ॥
भुजे स्कन्धे बन्धुनाशो हृदये च महाभयम् ।
धनधान्यसमृद्धिश्च जायते कुक्षिखातके ॥

मान०
वास्तुभेदाः
७. १—२९

अधुना पदविन्यासलक्षणं वक्ष्यते क्रमात् ।
प्रथमं चैकपदं स्यात्सकलं नाममैव मेवे (एव) च ॥
द्वितीयं चतुष्पदं चैव नाम पैशाच (पेचक) मेव च ।
तृतीयं नवपदं चैव नाम पीठमिति स्मृतम् ॥
चतुर्थं षोडशपदं महापीठमिति स्मृतम् ।
पञ्चमं पञ्चपञ्चांशमुपपीठमिति स्मृतम् ॥
षष्ठं च षष्ठषष्ठांशं चोग्रपीठं च कथ्यते ।
सप्तमं सप्तसप्तांशं स्थण्डिलं परिकीर्तितम् ॥
अष्टमं तु चतुःषष्टिपदं चण्डितमीरितम् ।
कथित (उक्त) मेकाशीतिपदं नवमं परमशाधि (यि) कम् ॥
दशमं शतपदं स्यान्नाम चासनमीरितम् ।
एकादशं तथा प्रोक्तं चैकविंशच्छतं पदम् ॥
स्थानीयं नाम चैवं तु चाथ द्वादशकं तथा ।
वेदाधिक्यं स चत्वारिंशदेव (द्देश्यं) शताधिकं पदम् ॥
त्रयोदशं तथा प्रोक्तं नवषष्ट्यधिकं शतम् ।
पदमेवं विधिं ज्ञात्वा नाम चोभयचण्डितम् ॥
चतुर्दशं तथा प्रोक्तं षण्णवत्यधिकं शतम् ।
नाम तद्भद्रमेवं (तु अ) चाथ पञ्चदशं तथा ॥
पञ्चविंशपदाधिक्यं शतद्वयपदान्वितम् ।
नामं (म) महासनं प्रोक्तमथ षोडशकं तथा ॥
सप्ताष्टाधिकं द्विशतं पञ्चगर्भपदं भवेत् ।
तथा वै सप्तदशकं नवाशीतिशतद्वयम् ॥
त्रियुतं पदमेवोक्तं तथाष्टादश(मं)कं तथा ।
चतुर्विंशत्सत्रिशतं चैव कर्णाष्टकं भवेत् ॥
एकोनविंशति तथा (चैव) सैकषष्टिशतत्रयम् ।
गणितं पदमित्येवं तथा विंशतिकं ततः ॥
चतुःशतपदं चैव प्रोक्तं कुर्याद्वि (सूर्यवि) शालकम् ।
तथा चैकविंशतिकं चैकपञ्चाष्टमाधिकम् ॥
चतुःशतपदं युक्तं सुसंहितमितीरितम् ।
तथापि द्वाविंशतिकं वेदाशीतिचतुःशतम् ॥
पदं सुप्रतिमाकान्तं स्यात्त्रयोविंशद्विधानके ।
नवविंशत्पञ्चशतं पदमेतद्विशालकम् ॥

चतुर्विंशद्विधाने तु षडाधिक्यं (क्य) सप्तति।
पञ्चशतपदयुतं विप्रगर्भमिति स्मृतम्।
पंञ्चविंशद्विधाने तु पञ्चविंशत्सषट्शतम्।
पदं विवेश (विश्वेशं) संज्ञातं (य?) नामसे वं प्रकीर्तितम्॥
षड्विंशतिविधाने तु षट्सप्ततिकसंयुतम्।
षट्शतं पद (दं) संज्ञात्वा विपुल (ल) भोगमिति (गं तु) स्मृतम्॥
सप्तविंशद्विधाने तु नवविंशतिसप्तशः।
शतयुतं पदं चैव विप्रकान्तमिति स्मृतम्॥
तथापि चाष्टाविंशत्ये वेदा (शीतिं च सा) शीत्या तथाधिकम्।
सप्तसंख्याशतयुतं विशालाक्षमिति स्मृतम्।
नवविंशद्विधाने तु चत्वारिंशैकमा (कं चा) धिकम्॥
अष्टशतपदयुक्तं विप्रभक्तीति (क्तिस्तु) कीर्तितम्॥
तत्र त्रिंशद्विधाने तु पदं नवशतं तथा।
एवं विश्वेशसारं च चैकत्रिंशद्विधानतः॥
एकषष्टिसमाधिक्य पदं नवशतयुतम्।
एवमीश्वरकान्तं स्याद्द्वात्रिंशद्विधानके॥
चतुर्विंशतिसंयुक्तसहस्रपदसम्मितम्।
एवं तु चन्द्रकान्तं स्यादेवमुक्तं पुरातनैः॥

मय०
वास्तुभेदाः
७. १—२१

वक्ष्येऽहं पदविन्यासं सर्ववस्तुसनातनम्।
सकलं पेचकं पीठं महापीठमतः परम्॥
उपपीठमुग्रपीठं (च?) स्थण्डिलं नाम चण्डितम्।
मण्डूकपदकं चैव पदं परमशायिकम्॥
तथासनं च स्थानीयं देशीयोभयचण्डितम्।
भद्रं महासनं पद्मगर्भं च त्रियुतं पदम्॥
व्रतभोगपदं चैव कर्णाष्टकपदं तथा।
गणितं पादमित्युक्तं पदं सूर्यविशालकम्॥
सुसंहितपदं चैव सुप्रतीकान्तमेव च।
विशालं विप्रगर्भं च विश्वेशं च ततः परम्॥
तथा विपुलभोगं च पदं विप्रतिकान्तकम्।
विशालाक्षपदं चैव विप्रभक्तिकसंज्ञकम्॥
पदं विश्वेशसारं च तथैवेश्वरकान्तकम्।
इन्द्रकान्तपदं चैव द्वात्रिंशत् कथितानि वै॥
सकलं पदमेकं स्यात् पेचकं तु चतुष्पदम्।
पीठं नवपदं चैव महापीठं द्विरष्टकम्॥
पञ्चविंशत्युपपीठं षटषटेचोग्रपीठकम्।

स्थण्डिलं सप्तसप्तांशं मण्डूकं चाष्टकाष्टकम् ॥
परमशायिपदं चैव नन्दनन्दपदं भवेत् ।
आसनं शतभागं स्यादेकविंशच्छतं पदम् ॥
स्थानीयं स्याच्चतुश्चत्वारिंशच्छतपदाधिकम् ।
देशीयं नवषष्ट्यंशं शतं चोभचण्डितम् ॥
षण्णवत्यधिकं चैव शतं चैव महासनम् ।
सपञ्चविंशद् द्विशतं पञ्चगर्भमिति स्मृतम् ॥
षडाधिक्यं तु पञ्चाशद्द्विशतं त्रियुतं पदम् ।
द्विशतं सनवाशीति व्रतभोगमिति स्मृतम् ॥
त्रिशतं च चतुर्विंशत् कर्णाष्टकपदं तथा ।
त्रिशतं चैकषष्ट्यंशं गणितं पदसंज्ञितम् ॥
चतुःशतपदं सूर्यविशालं परिकीर्तितम् ।
सुसंहितपदं चैकचत्वारिंशच्चतुःशतम् ॥
सवेदाशीतिचत्वारः शतं सुप्रतिकान्तकम् ॥
नवविंशत्पञ्चशतं विशालं पदमीरितम् ॥
षट्सप्ततिः पञ्चशतं विप्रगर्भमिति स्मृतम् ।
विश्वेशं षट्शतं पश्चात् पञ्चविंशत्पदं स्मृतम् ॥
षट्सप्ततिः षट्शतकं विपुलभोगमिति स्मृतम् ।
नवविंशतिकं सप्तशतं विप्रतिकान्तकम् ॥
विशालाक्षपदं वेदाशीतिसप्तशताधिकम् ।
सैकाष्टपञ्चयुक्तं चाष्टशतं विप्रभक्तिकम् ॥
विश्वेशसारमित्युक्तमेवं नवशतं पदम् ।
सैकषष्ट्या नवशतं पदमीश्वरकान्तकम् ॥
चतुर्विंशतिसंयुक्तं सहस्रपदसंकुलम् ।
इन्द्रकान्तमिति प्रोक्तं तन्त्रविद्भिः पुरातनैः ॥

शिल्प०
वास्तुभेदाः
६. १—६$\frac{1}{2}$

.........पदविन्यासः कथ्यते वास्तुसिद्धये ।
सकलं पेचकं पीठं महापीठोपपीठके ॥
उग्रपीठं स्थण्डिलं च मण्डूकपरशायिकम् ।
आसनं च तथा स्थानीयं च देशीयमुच्यते ॥
भयचण्डिताख्यपदं तथा भद्रमहासनम् ।
पञ्चगर्भं त्रियुतकं वृत्ताभोगाभिधं पुनः ॥
कर्णाष्टकपदं तद्वत् तथैव गणिकापदम् ।
पदं सूर्यविशालं तु सुसंहितपदं पुनः ॥
सुप्रतीकान्तं तद्वद् विशालं विप्रगर्भकम् ।
विश्वेशं विपुलाभोगं तथा विप्रतिकान्तकम् ॥

विशालाक्षं विप्रभक्तिकं च विश्वेशसारकम्।
तथैवेश्वरकान्ताख्यमिन्द्रकान्तपदं पुनः॥
द्वात्रिंशद्भेदसंयुक्तमेवं पदमिति स्मृतम्।

अवास्तुकार्मणज्ञानम् १३. १—१६½

मर्मादीनि निषिद्धानि वास्तुकर्मण्यनेकधा।
सन्ति संक्षेपतस्तानि द्विधा वक्ष्यामि सांप्रतम्॥
नाम्ना स्युर्दश पूर्वसौम्यमुखगा वास्तौ स्थिताः कल्पिते-
ष्वेकाशीतिपदेषु कर्णनिहिते सूत्रे लिखेत् तद्युते।
पश्चात् षट्त्रिपदस्थिता श्रुतिः+ + पार्श्वस्थिता रज्जवो
मर्मादीनि विभज्य वच्मि बहुधा तन्नाडिका रज्जुभिः॥
धर्मा यशोवती भद्रा शुभदा कामदा शुभा।
चित्रा सौम्या सुधा गौरी नाड्यः प्रागानना दश॥
अमृता वारुणी शान्ता नादिनी ब्रह्मवादिनी।
मनोरमा रतिः कान्ता ज्वालिनीशोत्तरानना॥
दक्षिणादिक्रमाज्ज्ञेया तद्रज्जुयुतिषु क्रमात्।
अष्टाभिः सङ्गतिर्यत्र नाडीरज्जुविमिश्रितैः॥
सूत्रैस्तत्र महामर्म ब्रह्मस्थानस्य कोणतः।
प्रत्येकं दिक्षु षट्कानि त्रिकोणा सन्ति पार्श्वतः॥
नाडीद्वयसमायोगान्युपमर्माणि तानि तु।
चतुर्विंशच्चतुष्काणि नाडीमर्माणि सन्ति च।
रज्जुमर्माणि रज्जुभ्यां चतुष्कं नवकं भवेत्।
कोणस्तम्भगमर्मान्तं त्रिकं बाह्यं विनिर्दिशेत्॥
षट्कं च मर्मसंभेदं कृतिं षण्णां वदन्ति हि।
पञ्चकं मर्मसन्धिश्च द्वे द्वे दिक्षु चतुर्ष्वपि॥
मध्यस्थितं समर्मरज्जुभ्यां दोषवर्जितम्।
स्थानान्येतानि वास्तोर्गृहकरणविधौ पीडयेन्नैव विद्वान्,
पीडा स्यात् पीडितेषु क्षितिपतिविषयब्राह्मणानां पशूनाम्।
तत्कर्तुः शिल्पिनां वा सतनयवनिताभ्रातृसंबन्धिनां च,
स्वस्थाः स्युस्तेन विद्धे पृथगथ विहितान् वच्मि दोषान् विभज्य॥
मूर्ध्नि वक्त्रे च कर्णे च हृदये मरणं भवेत्।
विद्धे चोरसि हृद्रोगं पादयोः कलहस्तथा॥
ललाटे भ्रातृहानिः स्याद् ,वित्तहानिस्तु पृष्ठयोः।
ऊर्वोर्मूत्युस्तु बन्धूनां पत्नीनाशस्तु वा भवेत्॥
गुह्ये तु सुतहानिःस्यादष्टके गर्भविच्युतिः।
षट्के च वृद्धिः शत्रूणां चतुष्के च गजक्षयः॥
पञ्चके व्याधिरुद्दिष्टस्तस्करेभ्यस्त्रिके भयम्।

वर्जयेत् कुड्यमध्ये च स्तम्भमध्यादिषु त्विदम् ॥
उक्तानुक्तं च यत्किञ्चित् प्रमादाद् यदि संभवेत् ।
एतानि दोषशान्त्यर्थं निधनेद्वास्तुकर्मणि ॥
सिंहमातङ्गमहिषकिटिकूर्मशिरांसि च ।
शुद्धहाटकक्लृप्तानि कर्तुः सौख्यविवृद्धये ॥

मानम्—

१. वि० वा० ७. ६२–८४

तद्वस्तु मानयेच्छिल्पी मानदण्डेन सर्वतः ।
तस्मान्मानं शिल्पिवर्गैरवश्यं ज्ञेयमीरितम् ॥
मानज्ञानविहीनैस्तु कर्म कर्तुं न शक्यते ।
कृतं च कर्म वैफल्यं भजते नात्र संशयः ॥
तन्मानं बहुधा प्रोक्तं तज्ज्ञेयं सूक्ष्मचक्षुषा ।
स्वर्गे लोके मानमादौ गुरुणा संप्रकीर्तितम् ॥
विविधं तच्च मघवा प्रोक्तवान्सुरसंसदि ।
देवेन नन्दिना तच्च बहुधाविष्कृतं पुरा ॥
तदेव विविधं प्रोक्तं नारदेन महर्षिणा ।
मानमेवं बहुविधं कथितं पूर्वसूरिभिः ॥
देवमानुषभूपालप्रासादेषु गृहेषु च ।
मण्टपेषु विमानेषु गोपुरे तोरणेऽपि च ॥
सोपानेषु प्रतोलीषु वापीकूपादिकेषु च ।
विविधासु च शालासु चन्द्रशालादिकासु च ॥
डोलादिषु गवाक्षेषु खट्वासु प्रतिमासु च ।
उपपीठेषु पीठेषु सिंहवक्त्रादिकेषु च ॥
अन्येषु शिल्पकार्येषु यन्मानं तच्च योजयेत् ।
मानाभावे क्रियादीनां न शोभा न बलादिकम् ॥
द्रव्यनाशश्चापयशो भवत्येव न संशयः ।
तस्मान्मानं शिल्पिवर्गैरवश्यं ज्ञेयमीरितम् ॥
परमाण्वादिमानन्तु प्रसिद्धं सुरसंसदि ।
न ग्राह्यं नापि विज्ञेयं मानवैस्तु कदाचन ॥
तस्मान्मानवमानन्तु प्रोच्यते फलदायि तत् ।
शालिव्रीहिस्तु सर्वत्र सिद्धमानोदयो मतः ॥
तैर्व्रीहिभिस्त्रिभिर्युक्तमङ्गुलं मानवं मतम् ।
द्वादशाङ्गुलसंयुक्तो वितस्तिरभिधीयते ॥
वितस्तिद्वयसंयुक्तं हस्तमानमुदीरितम् ।

हस्तमानद्वयोपेतो धनुर्मुष्टिरितीरिता ॥
धनुर्मुष्टिद्वयोपेतो दण्ड इत्यभिधीयते ।
दण्डद्वयेन संयुक्तो नृपदण्ड इतीरितः ॥
नृपदण्डद्वयोपेतो ब्रह्मदण्ड इति स्मृतः ।
इत्यादि बहुधा मानं शास्त्रेषूक्तं मनीषिभिः ॥
दारुणा पट्टवस्त्रेण लोहैर्वा वल्कलादिभिः ।
मानसूत्रमिदं कार्यं शिल्पिभिश्शास्त्रपारगैः ॥
वेरनिर्माणकार्येषु धनुर्मुष्टिरुदीरिता ।
विमाने देवपीठेषु वह्निशालादिकासु च ॥
हस्तमानन्तु संयोज्यं कार्यज्ञैश्शिल्पिनां वरैः ।
दण्डेन मानयेद्ग्रामनगरादीन्नृपेण वा ॥
घण्टापथं च शृङ्गाटं चत्वरं मानवं गृहम् ।
निषद्यां विपर्णिं मार्गशालां सस्यचितिं तथा ॥
दण्डेन क्ष्मापदण्डेन मानयेच्छिल्पकोविदः ।
पुष्कलं ग्राममानं च गिरिदुर्गवनानि च ॥
तरङ्गिणीं तटाकं च नृपप्रासादकन्तथा ।
उपकार्यां च विविधामवरोधांश्च शिल्पिराट् ॥
मानयेन्नृपदण्डेन सर्ववास्तुप्रमाणवित् ।
देवप्रासादशालादीन्ब्रह्मदण्डेन मानयेत् ॥
स्थिरधीरप्रमत्तश्च मानविच्छिल्पकोविदः ॥

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(क) हस्त-विभाजनं ६.४–६

रेणवष्टकेन बालाग्रं लिक्षा स्यादष्टभिस्तु तैः ।
भवेद् यूकाष्टभिस्ताभिर्यवमध्यं तदष्टकात् ॥
अष्टाभिः सप्तभिः षड्भिरङ्गुलानि यवोदरैः ।
ज्येष्ठमध्यकनिष्ठानि तच्चतुर्विंशतिः करः ॥
सोऽष्टभिः पर्वभिर्युक्तः करः कार्यो विजानता ।
करस्यार्धं चतुःपर्व शेषं स्याद् भक्तमङ्गुलैः ॥
तत्राग्रे पर्वरेखाः स्युस्तिस्रः पुष्पकभूषिताः ।
शेषास्त्वङ्गुलरेखासु पुष्पाणि विदधीत न ॥
अग्रार्धे मध्यतः कार्यं द्वेधा पञ्चममङ्गुलम् ।
मध्यं त्रिधाष्टमं कार्यं चतुर्धा द्वादशं ततः ॥
हस्तः स्वाङ्गुलमानेन विधेयाङ्गुल(मि?)इष्यते ।
तत् सार्धं द्विगुणं वापि वाहुल्यं तु तदर्धतः ॥

(ख) मान-विभाजनं ६.३६½-४०½

स्यादेकमङ्गुलं मात्रा कला प्रोक्ताङ्गुलद्वयम् ।
पर्व त्रीण्यङ्गुलान्याहुर्मुष्टिः स्याच्चतुरङ्गुला ॥
तलं स्यात् पञ्चभिः षड्भिः करःपादाङ्गुलैर्भवेत् ।

सप्तभि(र्द्वि?)र्दिष्टिरष्टाभिरङ्गुलैस्तूणिरिष्यते ॥
प्रादेशो नवभिस्तैः स्याच्छ्रयतालो दशाङ्गुलः ।
गोकर्ण एकादशभिर्वितस्तिर्द्वादशाङ्गुला ॥
चतुर्दशभिरुद्दिष्टः पादो नाम तथाङ्गुलैः ।
रत्निः स्यादेकविंशत्या स्यादरत्निः करोन्मितः ॥
द्वाचत्वारिंशता किष्कुरङ्गुलैः परिकीर्तितः ।
चतुरुत्तरयाशीत्या व्यामः स्यात् पुरुषस्तथा ॥
षण्णवत्याङ्गुलैश्चापं भवेन्नाडीयुगं तथा ।
शतं षडुत्तरं दण्डो नल्वस्त्रिंशद्धनुर्मितः ॥
क्रोशो धनुःसहस्रं तु गव्यूतं तद्द्वयं विदुः ।
चतुर्गव्यूतमिच्छन्ति योजनं मानवेदिनः ॥
एकं दश शतमस्मात् सहस्रमनु चायुतम् ।
नियुतं प्रयुतं तस्मादर्बुदन्यर्बुदे अपि ॥
वृन्दखर्वनिखर्वाणि शङ्कुपद्माम्बुराशयः ।
ततः स्यान्मध्यमन्त्यं च परं चापरमप्यतः ॥
परार्धं चेति विज्ञेयं दशवृद्ध्योत्तरोत्तरम् ।
संख्यास्थानानि कथितान्येवमेतानि विंशतिः ॥

(ग) मान-प्रयोगः
९.३०½-३९

विभागायमविस्ताराः खेटग्रामपुरादिषु ।
प्रासादवेश्मपरिखाद्वाररथ्यासमादिषु ॥
मार्गाश्च निर्गमा(ये?श्चै)षां सीमक्षेत्रान्तराणि च ।
वनोपवनभागांश्च देशान्तरविभक्तयाः ॥
योजनक्रोशगव्यूतिप्रमाणमपि चाध्वनः ।
प्राशयेन प्रमातव्याः खातकक्षचराशयाः ॥
तलोच्छ्रयान् मूलपादान् जलोद्देशानधः क्षितेः ।
तथा दोलाम्बुशस्त्रादि पातमानविनिर्णयम् ॥
शैलखातनिकेतानि सुरुङ्गामानमान्तरम् ।
साधारणेन वाऽप्यध्वमासं च परिकल्पयेत् ॥
आयुधानि धनुर्दण्डान् यानं शयनमासनम् ॥
प्रमाणं कूपवापीनां गजानां वाजिनां नृणाम् ।
अरघट्टेक्षुयन्त्राणि युगयूपहलानि च ॥
शिल्प्युपस्करनौच्छत्रध्वजातोद्यानि यानि च ।
वृसीकर्मोपकरणाटवाणादिकं च यत् ।
तत्त्वदण्डास्तथा मात्राशयहस्तेन मापयेत् ॥

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हस्तलक्षणमानं च गायत्रीमानसम्भवः ।
मानोन्मानप्रमाणं च सर्वकर्मसु कारणम् ॥

विज्ञेयं सूत्रधारेण हस्तमानं च लक्षणम्।
मानोन्मानप्रमाणाख्यं वास्तुशास्त्रादिदीपकम्॥
भास्करोदयनाद् दिष्टः किरणैश्च प्रकाशितः।
जालान्तरगते रश्मौ सूक्ष्मरेण्वष्टमांशकः॥
परमाणुः प्रमाणं तद् समुद्दिष्टं समन्ततः।
परमाणुरष्टगुणमेकत्र पिण्डलक्षणम्॥
रजोभिरष्टगुणितं केशाग्रं च प्रसिद्ध्यति।
केशाग्रैरष्टगुणितैर्लिक्षाकर्म तु योजयेत्॥
केशाग्रैश्चाष्टगुणितैर्लिक्षा चैका तु सिद्ध्यति।
लिक्षाभिरष्टभिर्यूका यूकाभिश्चाष्टभिर्यवः॥
तथाष्टगुणितैश्चैव यवैर्मानं प्रसिद्ध्यति।
निर्दोषं मानमेतच्च स्यात्परमाणुमूलकम्॥
उत्तममध्यमाधमैस्त्रिविधो माननिर्णयः।
न्यूनाधिके कृते हस्ते दोषः स्याच्च महाभयम्॥
ज्येष्ठं चाष्टयवैः प्रोक्तं मध्यमं सप्तभिर्यवैः।
स्यात्कनिष्ठं षड्यवैस्तच्चतुर्विंशतिभिः करः॥
एवं मानोद्भवो हस्त उदितश्च त्रिधा क्रमात्।
अङ्गुष्ठाग्रे पर्वरेखा पुष्पकं त्रिभिरङ्गुलैः॥
ओं तत्पुरुषाय विद्महे महादेवाय धीमहि।
तन्नो रुद्रः प्रचोदयात्॥
एतान्यङ्गुलाक्षराणि क्रमतश्चैव संस्थिताः।
पुष्पके देवतास्तिस्रः प्रतिष्ठाप्या यथाक्रमम्॥
आदौ विष्णुरन्ते रुद्रो ब्रह्मा मध्ये च संस्थितः।
भूर्भुवः स्वर्बीजत्रयं स्युराद्यस्वरदेवताः॥
ईश्वरो वायुर्विश्वे च वह्निर्ब्रह्मा दिवाकरः ?
रुद्रो यमो विरूपाख्यो वसुरिन्द्रो जलाधिपः॥
स्कन्द इच्छा क्रियाज्ञानं धनदो विजयस्तथा।
वासुदेवो बलभद्रः प्रद्युम्नश्चानिरुद्धकः॥
एते च वासुदेवांशाः कम्बिकानिश्चलाः स्मृताः।
आगमैर्वेदमन्त्रैश्च पूज्याश्च परमाः कलाः॥
रुद्रश्च पवनस्त्वष्टाऽनलो ब्रह्मा तथा यमः।
वरुणो धनदो विष्णुर्मूलतश्चान्ततः स्थिताः॥
अञ्जनैः खदिरैर्वंशैः कनिष्ठाः सर्जपादपैः।
हेमरौप्यताम्रमयाः श्रेष्ठा लौहाश्च मध्यमाः॥
आयामश्चचतुर्विंशत्या त्रिविधाङ्गुलतः स्मृतः।

ज्येष्ठमध्यकनिष्ठानां प्रत्येकं हस्तसङ्ख्यया ॥
नगरग्रामपूःखेटकूटानां कर्वटस्य च ।
मानसङ्ख्या योजनैश्च ज्येष्ठहस्तेन मापयेत् ॥
प्रासादप्रतिमालिङ्गजगतीपीठमण्डपान् ।
राज्ञां निवेशं भवनं मापयेन्मध्यमानतः ॥
शय्यासनं स्थालीपात्रं तत्र सिंहासनादिकम् ।
शस्त्रं यानं च झम्पानं मापयेच्च कनिष्ठतः ॥
सिद्धार्थाङ्गुलपृथुत्वे पिण्डं कुर्यात् तदर्धतः ।
चतुर्विंशत्यङ्गुलानां क्रमेण नवदेवताः ॥
रुद्राद्या ब्रह्मपर्यन्तं देवाः स्थानेषु पुष्पके ।
ब्रह्मतो विष्णुपर्यन्तं रेखाः स्युर्द्वादशाङ्गुलैः ॥
ब्रह्मादिस्थानपञ्चकं विभक्तं चाङ्कितं त्रिधा ।
अष्टमाङ्गुलं कार्यं चतुर्धा द्वादशाङ्कितम् ॥
इत्युक्तमानप्रमाणं प्रयुक्तं वास्तुवेदिभिः ।
४. मान० २.२०-४० मुनीनां नयनोद्वीक्ष्य(क्ष्यं)तत्परमाणुरुदाहृतम् ॥
ताभिरष्टाभिर्गुणितं रथधूलिरिति स्मृतम् ।
रथधूल्यष्टमिलितं वालाग्र(न्तु) मिति तु स्मृतम् ॥
वालाग्रैरष्टधायुक्तं लिक्षेति परिकीर्तितम् ।
लिक्षै(क्षाभि) श्चाष्टभिरायुक्तं यूकं तमि(दि)ति कथ्यते ॥
यूकैरष्टाभिः(भिश्च)प्रोक्तं यवमेवं विधीयते ।
यवैरष्टसमायुक्तमङ्गुलं तत्प्रकीर्तितम् ॥
मानमात्रं त्रिधा प्रोक्तं यववृद्धिविशेषतः ।
षट्सप्ताष्टयवैरेतत्कनिष्ठो(ष्ठ)मध्यमोत्तमम् ॥
अङ्गुलैर्द्वादशभिर्युक्तं वितस्तिः परिकीर्तितम्(ता) ।
वितस्तियुग्मं किष्कुः स्यात्प्राजापत्योऽङ्गुलाधिकः ॥
षड्विंशतिकाङ्गुल्यं हस्तमुक्तं धनुर्ग्र (हं ?) हः ॥
चतुर्हस्तं धनुर्दण्डं दण्डाष्टं रज्जुमेव च ।
याने च शयने चैव किष्कुहस्तेन मानयेत् ॥
विमानस्य तु सर्वेषां प्राजापत्येन मानयेत् ।
मानयेद्वास्तु यन्मानं धनुर्मुष्टिकरेण च ॥
ग्रामादीनां च मानानां(च सर्वेषां)मानयेत्तद्धनुर्ग्रहम् ।
किष्कुहस्तेन यन्मानं मानयेद्विश्वतस्तु वा ॥
शमी शाकं च चापं च खदिरः क्ष(रक्ष)तमालकः ।
क्षीरिणी तिन्त्रिणी(तिन्दिनी)चैव हस्तदारु प्रकीर्तितम् ॥
दारुसंग्रहणं(णात्) पश्चात्त्रिमासान्तं जले क्षिपेत् ।

क्षालयित्वा परिग्राह्यं तक्षकेण विदारयेत् ॥
तद्दारितं निकरं दारु तक्षयेच्चतुरस्रतः ।
एकहस्तसमं दीर्घं तदेकाङ्गुलविस्तृतम् ॥
घनमध्या(र्धा)ङ्गुलं प्रोक्तं हस्त(स्तं)निश्चित्य योजयेत् ।
न वक्रं न च भिन्नं च न रन्ध्रं स्निग्धमेव च ॥
क्रमुकं वा पि वेणुश्च च (गुश्च)दण्डदारु प्रकीर्तितम् ।
हस्तदण्डोभयोः प्रोक्तं(क्ता)विष्णुमूर्त्य(र्तिर)धिदेवता ॥
नालिकेर(नारिकेल)फलैःशाता(शाणैः)दर्भैर्न्यग्रोधवल्कलैः ।
कार्पासं(स)किंशुकैः(क)सूत्रैस्तालकेतकवल्कलैः ॥
यलमेद्वल्कलैर्ग्राह्यं रज्जुं संकल्पवित्तमः ।
पार्श्वादेकाङ्गुलं चैव तत्समं रज्जुनाहकम् ॥
देवभूसुरभूपानां त्रिवर्ति(र्ती)ग्रन्थिवर्जितम्(ता) ।
वणिजां शूद्रजातीनां रज्जुरेकद्विवर्तिता(र्ती च) ॥
वासुकी रज्जुदेवात्मा मानतज्ज्ञः(तज्ज्ञः)पितामहाः(हः) ।
तद्धार्य (तद्धृत्वा) हस्तं रज्जुश्च (च) मानदण्डं तथैव च ॥
स्मृत्वा मनसि तां(तान्)देवां(वान्)मानयेद्वर्धकी(किस्) तथा ।
एवं मान(ने)कृते वास्तुवस्त्वादि च विवर्धयेत् ॥
उक्तं न कुरुते यस्तु स स्थितो रेणुकं फलम् ।
तस्मात्परिहरेच्छिल्पी कारयेत्तत्तु विश्वतः ॥

५. मय० ५.१-१२½

सर्वेषामपि वास्तूनां मानेनैव विनिश्चयः ।
तस्मान्मानोपकरणं वक्ष्ये सङ्क्षेपतः क्रमात् ॥
परमाणुक्रमाद् वृद्धं मानाङ्गुलमिति स्मृतम् ।
परमाणुरिति प्रोक्तं योगिनां दृष्टिगोचरम् ॥
परमाणुभिरष्टाभी रथरेणुरुदाहृतः ।
रथरेणुश्च वालाग्रं लिक्षायूकायवास्तथा ॥
क्रमशोऽष्टगुणैः प्रोक्तो यवाष्टगुणितोऽङ्गुलः ।
अङ्गुलं तु भवेन्मात्रं वितस्तिर्द्वादशाङ्गुलम् ॥
तद्द्वयं हस्तमुद्दिष्टं तत् किष्किन्ति मतं चरैः ।
पञ्चविंशतिमात्रं तु प्राजापत्यमिति स्मृतम् ॥
षड्विंशतिर्धनुर्मुष्टिः सप्तविंशद्धनुर्ग्रहः ।
याने च शयने किष्कुः प्राजापत्यं विमानके ॥
वास्तूनां तु धनुर्मुष्टिर्ग्रामादीनां धनुर्ग्रहः ।
सर्वेषामपि वास्तूनां किष्कुरेवाथवा मतः ॥
रत्निश्चैवमरत्निश्च भुजो बाहुः करः स्मृतः ।
हस्ताश्चतुर्धनुर्दण्डौ यष्टिश्चैव प्रकीर्तिता ॥

दण्डेनाष्टगुणा रज्जुर्दण्डग्रामं च पत्तनम् ।
नगरं निगमं खेटं वेश्मादीन्यपि मानयेत् ॥
गृहादीनां तु हस्तेन याने च शयने बुधैः ।
वितस्तिना विधातव्यं क्षुद्राणामङ्गुलेन तु ॥
यवेनाल्पीयसां मानमेवं मानक्रमं विदुः ।
मध्यमाङ्गुलिमध्यस्थपर्वमात्रायतं तु यत् ॥
कर्तुर्मात्राङ्गुलं प्रोक्तं यागादीनां प्रशस्यते ।
देहलब्धाङ्गुलं यत्तदुपरिष्टाद् विधीयते ॥
एवमेवं विदित्वा तु स्थपतिर्मानयेद् दृढम् ।

६. शिल्प० २. १–२९

परमाणुरिति प्रोक्तो योगिनां दृष्टिगोचरः ।
त्रसरेणुरष्टभिः स्यात् तैरेव परमाणुभिः ॥
तदष्टभिस्तु बालाग्रं लीक्षा बालाग्रकाष्टभिः ।
लीक्षाष्टभिस्तु जूका स्याज्जूकाष्टगुणितो यवः ॥
यवोदरैः षड्गुणैर्वा सप्तभिर्वाधमादिकम् ।
क्रमादष्टगुणैर्वाथ मानाङ्गुलमिति स्मृतम् ॥
श्वेतशाली महाशाली रक्तशाली तथैव च ।
सौगन्धिशेमराली च शाली पञ्चविधा स्मृता ॥
चुण्णे सिता स्मृता शाली रक्तो व्रीहिरुदाहृतः ।
तासामुदरविस्तारैरपि मानाङ्गुलं स्मृतम् ॥
शाल्यायतैस्त्रिभिस्तैश्च सार्धैस्तैर्वेदसम्मितैः ।
मानाङ्गुलो नचाप्येवं कनिष्ठादीनि कल्पयेत् ॥
र(ल? क)शाल्यायतं तेषु द्विगुणं वा त्रिमात्रकम् ।
चतुस्त्रिंशद्विधं दुष्टमेवं मानाङ्गुलं बुधैः ॥
तद्भर्तुर्दक्षिणकरमध्यमामध्यपर्वणः (?) ।
दैर्घ्यं मात्राङ्गुलं श्रेष्ठं नीचं तद्द्वयसम्मितम् ॥
इत्थं मात्राङ्गुलं शिल्पशास्त्रज्ञैरीरितं द्विधा ।
अङ्गुलत्रितया मुष्टिर्वितस्तिर्द्वादशाङ्गुलिः ॥
तद्द्वयं हस्तमुद्दिष्टं तच्च किष्कुरिति स्मृतम् ।
एकैकाङ्गुलवृद्ध्यातो भवन्त्यष्टौ कराः स्फुटम् ॥
प्राजापत्यं धनुर्मुष्टिश्चापग्रहमतः परम् ।
प्राच्यां वैदेहकं नाम्ना वैपुल्यं च प्रकीर्तितम् ॥
इत्थमेकोत्तरत्रिंदङ्गुलान्ताः कराः स्मृताः ।
एवं त्वशीतिसंयुक्तद्विशतं करभेदकम् ॥
हस्तैश्चतुर्भिर्भवतीह दण्डो नीचोत्तमः पञ्चभिरेव हस्तैः ।
सार्धाऽधिहस्तैरथ मध्यमोऽयं क्रोशः सहस्रद्वितयेन तेषाम् ॥

स्याद् योजनं क्रोशचतुष्टयेन तथा कराणां दशकेन वंशः ।
निवर्तनं विंशतिसंख्यवंशैस्तथैव रज्जुर्गजदण्डदीर्घः ॥
ग्रासन्धेर्बद्धमुष्टिस्तु करोऽरत्निरुदाहृतः ।
स एवारत्निरुद्दिष्टास्त्वष्टौ चेदार्कनिष्ठिका ॥
प्रादेशतालगोकर्णवितस्त्यः स्युर्यथाक्रमम् ।
तर्जन्यादिकनिष्ठान्तमङ्गुष्ठाग्रात् प्रसारिताः ॥
मानाङ्गुलैः केवलमेव कुर्याद् देवालयादीनि गृहाणि वा नृणाम् ।
कुण्डादिकानामथ मण्डलानां सर्वत्र मात्राङ्गुलमिष्यते बुधैः ॥
याने च शयने किष्कुः प्राजापत्यं विमानके ।
ग्रारामोद्यानकादौ तु प्राजापत्यकरं स्मृतम् ॥
वास्तूनां च धनुर्मुष्टिर्ग्रामादीनामियं तु वा ।
वापीकूपादिमार्गादौ ग्रामादीनां धनुर्ग्रहम् ॥
विप्रादीनां करौ द्वौ द्वौ प्रकीर्णकधनुर्ग्रहौ ।
वैपुल्यचापमुष्ट्याख्यौ स्यातां भवनमापने ॥
प्राजापत्याख्यवैदेहौ किष्कुप्राच्यौ च तत्क्रमात् ।
सर्वेषां सर्ववस्तूनां किष्कुरेवाथवा मतः ॥
धनुर्ग्रहः प्रकीर्णाद्या द्विजानां गृहमापने ।
वैपुल्यं च धनुर्मुष्टिः क्षत्रियाणां विशेषतः ॥
प्राजापत्यं च वैदेहं वैश्यजात्यार्हकं स्मृतम् ।
किष्कुप्राच्यककूचैव शूद्राणामिति केचन (?) ॥
दण्डेन तद्ग्रामनिवेशनाद्यं पुराणि वाटं निगमं च कुर्यात् ।
हस्तेन वेद्यादिषु मानमुक्तं स्वल्पेषु चेदङ्गुलकैर्यवैर्वा ॥
मुष्टिः स्याद् यज्ञपात्रादौ वितस्तिर्वस्त्रकादिषु ।
तालं विम्बादिके माने भवेत्तद्धर्मि(?)तद्विधौ ॥

आयादिषड्वर्गः

ग्रायादीनां षण्णां सामान्यम्

(i) तन्त्रसमु० २.३

इष्टातानवितानमाननिचये त्रिघ्नेऽष्टभिर्भाजिते ।
शेषो योनिरिह व्ययो मुनियुजाथायोऽष्टनिघ्नेऽस्त्वैः ॥
ऋक्षैर्ऋक्षमथासिरत्र तु वयो ज्ञेयं तिथिस्त्रिंशता ।
वारो भूमिधरैर्निधिप्रगुणिते धर्माहृते वा व्ययः ॥

(ii) विमर्षिणीतः विस्तारायामराशौ वसुगुणित इनैर्भाजिते शेष ग्रायो
रामघ्ने मन्वयाप्ते व्यय इह वसुभिर्भक्तशेषस्तु योनिः ।

अष्टाभिर्वर्धतेऽस्मिंस्त्रिनवहृतफलं तद्वयः शेषऋक्षं
पर्यन्ते त्रिंशदाप्ते तिथिऋषि भजिते वार आदित्यपूर्वः ॥

(iii) मयमततः व्यासायामसमूहे वसुनिधि गुणिते दिनेशधर्महृते
आयं व्ययमवशिष्टं शमघ्नेऽष्टाहृते योनिः ।

प्राची साधने आयादीनां महत्वं विशेषतश्चयोनेः ॥ (तन्त्रसमु० २.२.)
ईशादिप्रेतेशपर्यन्तदिक्स्थाः प्रासादाः ग्रामादिकेषुध्वजोत्थाः ।
गोयोन्युत्थाः शेषदिक्संस्थिता स्युस्तत्स्वाप्याचा चेष्यते तत्सयोनिः ॥

तथाहि मनुष्यालयचन्द्रिकायाम् (३. ३१)—
"योनिः प्राणा एव धाम्नां यदस्माद् ग्राह्यस्तत्तद्योययोनिप्रभेदः"

स० सू० आयव्ययांशकर्त्तारिण प्रवक्ष्यामोऽथ वेश्मनाम् ।
२६. ११½-१२½ गृहमानवशात् सम्यक् कर्तुः स्थानबलाबलम् ॥
(अ) आय-लक्षणम् नगरे वा पुरादौ वा दण्डैर्मानं विधीयते ।
१२½-२४½ तदलाभे करैः कार्यं सम्यगायविशुद्धये ॥
यत्र हस्तैर्मितिः क्षेत्रे तत्रायो हस्तसंश्रितः ।
क्षेत्रालाभे तु तत्रैव ग्राह्यः स स्यादिवाङ्गुलैः (?) ॥
अङ्गुलैस्तु सिते क्षेत्रे सोऽङ्गुलैस्तदलाभतः ।
पादैर्वाथ यवैर्वापि ग्राह्यः क्षेत्रानुसारतः ॥
गृहेषु कर्महस्तेन मानं स्वामिकरेण वा ।
देवतानां तु धिष्ण्येषु कर्महस्तेन केवलम् ॥
दैर्घ्यं हन्यात् पृथुत्वेन हरेद् भागं ततोऽष्टभिः ।
यच्छेषमायं तं विद्याच्छास्त्रदृष्टं ध्वजादिकम् ॥
ध्वजो धूमोऽथ सिंहश्च श्वा वृषः खरकुञ्जरौ ।
ध्वाङ्क्षश्चेति त उद्दिष्टाः प्राच्याद्यासु प्रदक्षिणम् ॥
अन्योन्याभिमुखास्ते च कामं स्वच्छन्दचारिणः ।
पूर्वाचार्यैः समुद्दिष्टा आयवृद्धिविधायकाः ॥
वृषसिंहगजाः शस्ताः प्रासादपुरवेश्मसु ।
ध्वजेऽर्थलाभः सन्तापो धूमे भोगो मृगाधिपे ॥
कलिः शुनि धनं धान्यं वृषे स्त्रीदूषणं खरे ।
गजे भद्राणि दृश्यन्ते ध्वाङ्क्षे तु मरणं ध्रुवम् ॥
वृषस्थाने गजं कुर्यात् सिंहं वृषभहस्तिनोः ।
न कुर्याद् वृषमन्यत्र शस्यते सर्वतो ध्वजः ॥
कल्याणं कुरुते सिंहो ब्राह्मणस्य विशेषतः ।
क्षत्रियस्य गजः शस्तो वृषभः शस्यते विशः ॥
शूद्रस्य ध्वज एवैकः शस्यतेऽर्थप्रदः सदा ।

एवमेते गृहादीनामायाः सर्वे प्रकीर्तिताः ॥
प्रदद्यादासने सिंहमातपत्रेषु तु ध्वजम् ।
चिह्नेष्वपि च सर्वेषु चामरव्यजनादिषु ॥
सिंहं गजं वा शस्त्रेषु रथेषु कवचेषु च ।
सार्थश्वगजपर्याणेष्विभं वृषभमेव च ॥
अर्थधारणपात्रेषु शयनेषु मतङ्गजम् ।
याने च वाहने चैव मतिमान् योजयेद् गजम् ॥
प्रासादप्रतिमालिङ्गपीठमण्डपवेदिषु ।
कुण्डेषु च ध्वजं दद्याद् देवोपकरणेषु च ॥
आयो गृहवदुद्वाहवेदीमण्डपयोर्भवेत् ।
महानसे वृषं दद्याज्जलाधारे जलाशये ॥
स्थाल्यां भोजनपात्रे च कोष्ठागारेऽन्नधारणे ।
एतद्गृहे तथा दद्याद् गृहोपकरणेषु च ॥
वृषभं गजशालायां प्रदद्याद् गजमेव वा ।
वृषं तुरगशालासु गोशालागोकुलेषु च ॥
गजाश्ववृषशालासु सिंहं यत्नेन वर्जयेत् ।
अधमानां खरध्वाङ्क्षधूमश्वानः शुभावहाः ॥
धूमोऽग्निजीविनां शस्तो ध्वाङ्क्षः सन्न्यासिनां हितः ।
श्वगणानां श्वपाकानां स्ववेश्मानां खरः शुभः ॥
नटनर्तकवेश्मेषु पण्यस्त्रीणां खरः शुभः ।
कुलालरजकादीनां तथा गर्दभजीविनाम् ॥

व्ययलक्षणम् ३४½–३६½

गृहादिषु क्षेत्रफलं गणयेदष्टभिर्भजेत् ।
त्रिघनेन भजेच्छेषं नक्षत्रेऽष्टहृते व्ययः ॥
पिशाचो राक्षसो यक्ष इति त्रेधा व्ययो मतः ।
साम्याधिक्यन्यूनताभिरायतः स्याद् यथाक्रमम् ॥

अंशक लक्षणम् ३६½–४०

व्ययं क्षेत्रफले क्षिप्त्वा गृहनामाक्षराणि च ।
भागं त्रिभिर्हरेत् तत्र यच्छेषं सोंऽशको भवेत् ॥
चतुरङ्गे यथा मन्त्री मुख्यो लग्नान्नवांशकः ।
तथा गृहादिषु प्रोक्तं मुख्यत्वेनांशकत्रयम् ॥
इन्द्रो यमश्च राजा च त्रयो नामभिरंशकाः ।
स्वनामतुल्यफलदा विज्ञातव्यास्त्रयोऽपि च ॥

तारालक्षणम् ४०–४८

गणयेत् स्वामिनक्षत्राद् यावत् स्याद् भवनस्य भम् ।
नवभिर्भाजिते तस्मिञ्शेषं तारा प्रकीर्तिता ॥
जन्म सम्पद्विपत्क्षेमपापसाधकनैधनीः ।
मैत्रीपरममैत्र्यौ च प्राहुः संज्ञाः समाः फले ॥

त्रिसप्तपञ्चमीर्भर्तुः हतारा विवर्जयेत् ।
आद्याद्वितीयाष्टम्यस्तु ताराः स्युरिह मध्यमाः ॥
तथा ऋक्षेऽपि चानिष्टे चन्द्रेऽष्टमगतेऽपि च ।
नयते दुरितं तारा चतुःपञ्चवती (?) नृणाम् ॥
सुरराक्षसमर्त्याख्या ऋक्षाणां स्युर्गणास्त्रयः ।
यद्गणर्क्षो भवेद् भर्ता तद्गणर्क्षं गृहं शुभम् ॥
मृगाश्विरेवतीस्वात्यो मैत्रं पुष्यपुनर्वसू ।
हस्तः श्रवण इत्येष देवाख्यो नवको गणः ॥
विशाखा कृत्तिकाश्लेषा नैर्ऋतं वारुणं मघा ।
चित्रा ज्येष्ठा धनिष्ठेति नवको राक्षसो गणः ॥
आर्द्राभरणीरोहिण्यस्तिस्रः पूर्वास्तथोत्तराः ।
इति नक्षत्रनवकं विज्ञेयं मानुषे गणे ॥
गणसाम्यं शुभा तारा, यस्य, भर्तुर्व्ययोऽल्पकः ।
षड्वर्गस्य सामान्यम् हितोंऽशकश्च तद्वेश्म भर्तुः शुभफलप्रदम् ॥
८९-९६ आयो व्ययश्च योनिश्च ताराश्च भवनांशकाः ।
गृहनामेति चिन्त्यानि करणानि गृहस्य षट् ॥
त्रिभिः शुभैः शुभं वेश्म द्वाभ्यामेकेन चाशुभम् ।
करणैश्चतुराद्यैस्तु शुभैरतिशुभं भवेत् ॥
न समायव्ययं वेश्म नाव्ययं नाधिकव्ययम् ।
न द्वितीयांशमसद्योनिभं च न कारयेत् ।
भर्तृतुल्याभिधानं च गृहं दूरात् परित्यजेत् ॥
समसप्तकमेषर्क्षं तृतीयैकादशं तथा ।
चतुर्थदशकं चेति कर्तव्यं मन्दिरं सदा ॥
षट्कोष्ठकं त्रिकोणं च वर्ज्यं द्विर्द्वादशं तथा ।
षट्कोष्ठके मृतिर्दैन्यं वियोगश्च भवेद् गृहे ॥
त्रिकोणे वसतां दुःखं वैधव्यं च प्रजायते ।
द्विर्द्वादशे पुत्रपौत्रगुरुबन्धुधनक्षयः ॥
हतेऽष्टभिः क्षेत्रफले खनेत्रशशिभाजिते ।
शेषं जीवितमेतस्मिन् पञ्चभक्ते भवेन्मृतिः ॥
सभुजं सहषड्दारु मुखमण्डपसंयुतम् ।
आयामतः पृथुत्वाच्च मानं कृत्वा विभाजयेत् ॥
सर्वतः शोधितं वास्तु यच्चलम्यङ्मितं भवेत् ।
स्वामिनस्तद् भवेद् धन्यं स्थपतेश्च यशस्करम् ॥
अर्चितं वर्धते वास्तु नारीभिः पशुभिर्नरैः ।
कीर्त्यायुर्धनधान्यैश्च प्रमोदैस्तु महोत्सवैः ॥

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(आयाधिकारः)

आयव्ययांशका ऋक्षं ताराचन्द्रबलं गृहे।
जीवितं मरणं ज्ञेयं वास्तुविज्ञानपूर्वकम्॥
नगरे वा पुरे चैव मानं दण्डैर्विधीयते।
वास्तुदण्ड इति प्रोक्तः सोऽत्र वै हस्तसङ्ख्यया॥
चतुर्हस्तं च यत्क्षेत्रमङ्गुलैश्च फलप्रदम्।
वस्वङ्गुलैश्च क्षेत्रं तु पादैर्वा प्रतिशोधयेत्॥
तत्क्षेत्रं तु यथाकारमस्मकार्यं विशोधयेत्।
यत्र हस्तमितिः क्षेत्रे तद्गृहं हस्तसङ्ख्यया॥
क्षेत्रालाभे तु तत्रैव स्यात्स्वदेहाङ्गुलैर्गृहम्।
अङ्गुलैः क्षेत्रमाने च अङ्गुलैस्तदलाभतः॥
पादैर्वापि यवैर्वापि गृहक्षेत्रानुसारतः।
तृणच्छन्दे स्वामिहस्तैर्हर्म्यादौ कर्मिहस्ततः॥
राजवेश्मपुरादीनां वापीकूपादिकस्य च।
प्रासादेषु च देवानां शास्त्रहस्तेन केवलम्॥
दैर्घ्यं हन्यात्पृथुत्वेन हरेद्भागं ततोऽष्टभिः।
शेषमायं चैव विद्याच्छास्त्रदृष्टं ध्वजादिकम्॥
ध्वजो धूमश्च सिंहश्च श्वानो वृषखरौ गजः।
ध्वाङ्क्षश्चेति समुद्दिष्टाः प्राच्यादिषु प्रदक्षिणाः॥
अन्योऽन्याभिमुखास्ते च क्रमच्छन्दानुसारतः।
पूर्वं चये समुद्दिष्टा आयुर्वृद्धिविधायकाः॥
ध्वजः सिंहो वृषगजौ शस्यन्ते सुखवेश्मनि।
अधमानां खरध्वाङ्क्षधूमश्वानः सुखावहाः॥
ध्वजः प्रायः कृतयुगे त्रेतायां सिंह एव च।
द्वापरे वृषबाहुल्यं गज एव कलौ युगे॥
कल्याणं कुरुते सिंहो नृपाणां च विशेषतः।
ध्वजः प्रशस्यते विप्रे वृषो वैश्ये तथोदितः॥
उत्तरोत्तरमाख्याताश्चतुर्वर्णफलप्रदाः ।
ध्वजे चैवार्थलाभः स्याद् धूमे संताप एव च॥
सिंहे च विपुला भोगाः कलिः श्वाने सदा भवेत्।
धनधान्यं वृषे चैव स्त्रीदूषणं च रासभे॥
गजे भद्राणि पश्यन्ति ध्वाङ्क्षे च मरणं ध्रुवम्।
प्रासादप्रतिमालिङ्गजगतीपीठमण्डपे ॥
वेदीकुण्डशुचिष्वेवं पताकाछत्रचामरे।
वापीकूपतडागानां कुण्डानां च जलाशये॥
ध्वजोद्भूयस्य संस्थाने ध्वजं तत्र निवेशयेत्।

आसने देवपीठेषु वस्त्रालङ्कारयोजने ॥
केयूरमुकुटाद्ये च वेशयेच्च ध्वजं शुभम् ।
अग्निकर्मसु सर्वेषु होमशालामहानसे ॥
धूमोऽग्निकुण्डसंस्थाने होमकर्मगृहेऽपि वा ।
आयुधानां समस्तानां नृपाणां भवनेषु च ॥
नृपासने सिंहद्वारे सिंहं तत्र निवेशयेत् ।
श्वानश्च म्लेच्छजातौ च गेहे श्वानोपजीविनाम् ॥
तथा चाग्रुद्धसंस्थाने प्रशस्तः श्वानको मतः ।
वणिक्कर्मसु सर्वेषु भोज्यपाधुत्रे मण्डपे ॥
वृषस्तुरङ्गशालायां गोशालायां च गोकुले ।
ततविततादिस्वरे वादित्रे विविधे तथा ॥
कुलालरजकादीनां खरो गर्दभजीविनाम् ।
गजश्च गजशालायां यानझम्पानयो रथे ॥
शय्यायां शिविकायां च गजमुद्रा चतुष्कतः ।
अन्तःपुरे गृहे प्रोक्तः पिण्डवास्यादिकोद्भवः ? ॥
अन्योपस्करकादौ च मदनागारके गजः ।
तथाऽरहट्टयन्त्रेषु जिनशालादिकेषु च ॥
ध्वाङ्क्षः कल्याणकृच्चैवं शिल्पकर्मोपजीविनाम् ।
स्वके स्वके वै स्थाने च सर्वे कल्याणकारकाः ॥
मित्रस्नेह्यानुगाश्चैव ते सर्वे हितकामदाः ।
वृषस्थाने गजं दद्यात् सिंहं वृषभहस्तिनोः ॥
ध्वजः सर्वेषुदातव्यो वृषो नान्यत्र दीयते ।
गजाभिदृष्टिः सिंहः स्याद् वारुणाभिमुखो ध्वजः ॥
वृषभः प्राच्यभिमुखो गजो याम्यमुखस्तथा ।
सन्मुखा याम्योत्तराश्च अशस्ताः पृष्ठतोमुखाः ॥
स्वके स्वके वै स्थाने च प्रशस्ताश्च त्रिदिशु च ।
ध्वजः पुरुषरूपश्च सिंहः सिंहस्वरूपकः ॥
वृषो वृषभरूपाढ्यो गजो हस्तिस्वरूपकः ।
धूमो मार्जाररूपाढ्यो श्वानः श्वानाधिरूपकः ॥
खरो गर्दभरूपाढ्यो ध्वाङ्क्षः काकस्वरूपकः ।
सर्वे च वृषभारूढाः पुरुषाकारमुद्गलाः ? ॥
तद्रूपकाश्च हस्ताभ्यां पादाभ्यां विहगानुगाः ।
ग्रीवया सिंहरूपाश्च प्रबलाश्च महोत्कटाः ॥
महागणेश्वराः प्रोक्ता अष्टदिक्क्षेत्रपालकाः ।
वास्तुकर्मसु सर्वेषु आया दिक्पतयोऽष्ट हि ॥

पूजिताः पूजयन्त्येव निघ्नन्ति चापदस्थिताः।
साध्यक्षेत्रं च त्रिपुटं प्रभिन्नं च नवांशकैः॥
अष्टौ तथाऽऽयस्थानानि मध्ये स्यात्कुलदेवता।
गृहस्याऽभिमुखाः शस्ताः मध्यमाश्च पराङ्मुखाः॥
नगराभिमुखाः शस्ताः पुरबाह्ये तु देवताः।
देवानां प्रतिमा आया दिशापाला इति स्मृताः॥
वसवः प्रतिदेवाश्च शिवयोगसमुद्भवाः।
यावत्तु शिवदेवत्वं यावच्चन्द्रार्कमेदिनी॥
तावच्च वास्तुशास्त्रोक्ता आयाश्च समुदाहृताः।
साध्यक्षेत्रगुणाकारैरायाश्चैव प्रतिष्ठिताः॥
यावत्तु क्षेत्रभक्तिश्च तावदायः प्रपालयेत्।
खण्डितं स्फुटितं जीर्णं विशीर्णं स्फुटस्फोटितम्॥
त्यक्त्वा च वास्तुदेवाद्यमायास्तेषु विवर्जिताः।
अपदं तस्य संस्थानं मासान्ते सन्धिशोधितम्॥
दिनाष्टके प्रलिप्ताङ्गं वर्जयन्ति च नित्यशः।
भानूदये मण्डलं च पुष्पप्रकरसंकुलम्।
उदुम्बरोत्तरङ्गाढ्यं जलकुम्भादिपूजनम्॥
गृह्णाति हुताशनं? स्वस्तिकैश्च महोत्सवैः।
एवं वास्तावायाद्यं च श्रियं चिन्तति नित्यशः॥
शिवस्य पुष्पैश्चरणौ सुपूजितौ वराङ्गनासेवनमल्पभोजनम्।
अनग्नशायित्वमपर्वमैथुनं चिरप्रनष्टां श्रियमानयन्ति॥

(ब) ६५. १—३१
नक्षत्रराशिचन्द्र,
मैत्र्यनुक्रमः

आयानां यत्तु क्षेत्रं च गुणितव्यं प्रतिष्ठयेत्।
तत्क्षेत्रस्य फलं साध्यं गुणितं दैर्घ्यविस्तरैः॥
फले चाष्टगुणे तस्मिन् सप्तविंशतिभाजिते।
यच्छेषं लभ्यते तत्र नक्षत्रं तद्गृहस्य च॥
देवनृराक्षसानां च नक्षत्राणां त्रिधा गणः।
यस्य यस्यानुगा मैत्री वैरं स्याच्च परस्परम्॥
स्वगणे परमा प्रीतिर्मध्यमा दैवमानुषे।
मर्त्यराक्षसयोर्मृत्युः कलहो देवरक्षसोः॥
नव देवगणाः प्रोक्ता मानुषा नव कीर्तिताः।
नव रक्षोगणाश्चैव नक्षत्राणां त्रिधा गणः॥
कृत्तिका मघा विशाखा आश्लेषा शततारका।
चित्रायुक्ता धनिष्ठा च ज्येष्ठा मूलं च राक्षसाः॥
मृगोऽश्विनी रेवती च हस्तः स्वातिः पुनर्वसू।
पुष्यानुराधाश्रवणमेते देवगणः स्मृतः॥

तिस्रः पूर्वाश्च भरणी आर्द्रा वै रोहिणी तथा।
उत्तरात्रयसंयुक्तः कीर्तितो मानुषो गणः॥
अथ राशीः प्रवक्ष्यामि लभ्या क्षेत्रफलेषु च।
तदनुक्रमयुक्तोऽस्य कथये तव साम्प्रतम्॥
गृहक्षेत्रेषु यद्वर्ग पञ्चत्रिंशशताहतम्।
षष्टिभिश्च हरेद् भागं भुक्तवत्यस्तु शेषतः॥
ऋक्षभुक्तिक्रमयुक्ता स्वस्वराशिकसंज्ञिताः।
स्युर्मेषाद्या राशयश्च अश्विन्यादिक्रमेण च॥
वास्तुचक्रादिचक्रेषु ग्रहवेधविशोधनैः।
अष्टाविंशतिरेवं च साभिजित् कृत्तिकादयः॥
चातुर्वर्ण्यप्रशस्तांश्च राशीनथ वदाम्यहम्।
तत्र त्रयस्त्रयः प्रोक्ता विप्रशूद्रान्तसार्गतः॥
वृश्चिकः कर्कटो मीनो ब्राह्मणाः परिकीर्तिता।
धनुर्मेषस्तथा सिंहो राजन्याश्च शुभाः स्मृताः॥
वृषः कन्या च मकर एते वैश्या उदाहृताः।
मिथुनं च तुला कुम्भस्त्रयः शूद्राः प्रकीर्तिताः॥
भवेद् द्वादशभिर्विप्रः क्षत्रियो नवभिस्तथा।
षड्राशिभ्यो भवेद् वैश्यस्त्रिभिः शूद्रः प्रशस्यते॥
चातुर्वर्णान्तरभेद एवमुक्तोऽपराजित।
प्रीत्यर्थं च पुनर्भेदं कथये तव साम्प्रतम्॥
षडष्टके ध्रुवं मृत्युः प्रीतिः स्यात् समसप्तमे।
अनिष्टं पञ्चनवमे पुष्टिर्दशचतुर्थके॥
तृतीयैकादशे मैत्री तृतीयद्वादशे रिपुः।
राशयः षड्विधा एवमन्योन्यं पतिवेश्मनोः॥
गृहाग्रे च यदा चन्द्रो क्षयं वेश्म करोति हि।
राट्चौराग्निभयं घोरं चन्द्रे वै पृष्ठमागते॥
धनधान्यजनारोग्यं कुरुते दक्षिणस्थिते।
श्रीस्त्रीपुत्रा उत्तमाश्च चन्द्रे वै उत्तरे स्थिते॥
सप्तोर्ध्वं स्थापयेद्रेखाः पुनर्भिन्नाश्च सप्तभिः।
रेखाः प्रोक्तानि साभिजिन्नक्षत्राण्यष्टविंशतिः॥
कृत्तिकादग्नमीशान्यां शेषर्क्षाणि प्रदक्षिणे।
गृहक्षेत्रोक्तमृक्षं च तत्र चन्द्रमुदीरयेत्॥
वेश्मपत्योर्भवेच्चैव गृहमैत्री परस्परम्।
द्वादशोक्ता राशयश्च नवैव च ग्रहास्तथा॥
तथैकराशिकाः केचित् केचिच्चैव द्विराशिकाः।

तदनुक्रमकं वक्ष्ये यदुक्तं परमेश्वरैः ॥
भौमस्य वृश्चिको मेषो भार्गवस्य तुलावृषौ।
बुधस्य कन्यामिथुने सोमस्यैवं तु कर्कटः ॥
सिंहः सूर्यस्य क्षेत्रं स्याद् धनुर्मीनौ तथा गुरोः।
शनेश्च कुम्भमकरौ गृहक्षेत्राधिपा इति ॥
न पीडयन्त्यात्मक्षेत्रं स्नेहिनः क्षेत्रपालकाः।
रिपुगृहं पीडयन्ति भस्मीकुर्वन्ति विग्रहे ॥
स्यात्सूर्यमन्दयोर्वैरं तथा च कुजमन्दयोः।
गुरुशुक्रयोः स्याद्वैरं चन्द्रेण च बुधस्य तु ॥
रवेरङ्गारकस्यैव मैत्री च गुरुचन्द्रयोः।
एषां त्रयाणां वै मैत्री ह्यन्येषां तु न विद्यते ॥
ग्रहाश्चत्वार एकत्र त्रय एकत्र संस्थिताः।
उभयोरन्तरं घोरं कालानल इवापरः ॥

(स) ६६. १–४२ व्ययांशकतारग्रहजीवमृत्युसर्वबलं

नक्षत्रे वसुभिर्भक्ते यच्छेषं व्ययमादिशेत्।
अष्टौ व्ययास्तथाप्रोक्ता आयेष्वष्टसु योजिताः ॥
आयाश्च कथिताः पूर्वं व्ययानां लक्षणं शृणु।
एकैका यस्य संस्थाने व्ययाश्च त्रिविधाः स्मृताः ॥
समो व्ययः पिशाचश्च राक्षसस्तु व्ययोऽधिकः।
व्ययो न्यूनो यक्षश्चैव धनधान्यकरः स्मृतः ॥
अनायव्यये कर्तरि आयहीने व्यये तथा।
व्ययाधिके विनश्यन्ति अचिरेणैव सर्वदा ॥
ध्वजादिष्वष्टस्वायेषु ह्यष्टौ शान्तादिका व्ययाः।
प्रत्येकव्ययसंस्थाभ आयो न्यूनेतरः स्मृतः ॥
शान्तः पौरः प्रद्योतश्च श्रियानन्दो मनोहरः।
श्रीवत्सो विभवश्चैव चिन्तात्मा च व्ययाःस्मृताः ॥
आयस्थाने व्ययो योज्यो ह्यप्रशस्तो व्ययोऽधिकः।
व्ययो न्यूनस्तथा श्रेष्ठो धनधान्यकरः स्मृतः ॥
स्मृतो ध्वजे शुभः शान्तः नित्यं कल्याणकारकः।
भोज्यं पूजाफलं शान्तिनृत्यं गीतं सुरालये ॥
धूम्रस्थाने यदा शान्तो हेमरत्नादिसम्भवः।
अग्न्युपजीवकानां च धातुद्रव्यफलप्रदः ॥
सिंहस्थाने च पौरश्चेत् सिंहवच्च पराक्रमैः।
निहन्ति रिपुसैन्यानि आत्मस्थाने महोत्सवाः ॥
प्रद्योतः श्वानसंस्थाने नित्यं भोगसुखावहः।
शय्यासु वेश्मनि तथानेकभोगादिकामदः ॥

श्रियानन्दो वृषस्थाने नित्यं श्रीसुखशान्तिदम्।
व्यवहारोपस्करं च गुरुदेवार्चने रतिम्॥
मनोहरः खरे युक्तः सर्वमनोरथप्रदः।
समस्तभोगयुक्तानां तीर्थयात्राप्रकाशकः॥
श्रीवत्सो गजसंस्थाने स्त्रीणां क्रीडात्मनः स्मृतः।
शृङ्गारभोगयुक्तानां बलपुष्टिप्रदायकः॥
विभवो ध्वाङ्क्षसंस्थाने शिल्पिनां हितकामदः।
सूत्रशास्त्रार्थसम्पन्ना भोगशृङ्गारनिश्चलाः॥
सर्वेषु शान्त आयेषु प्रशस्तः सर्वकामदः।
षट्सु सिंहादिषु शुभः पौरो धूमध्वजौ विना॥
ध्वजे धूमे तथा सिंहे प्रद्योतादीन् विवर्जयेत्।
शेषाणां सुप्रशस्ताश्च तथा स्थानेषु पञ्चसु॥
खरे वृषे श्रियानन्दो गजे ध्वाङ्क्षश्च शोभनः।
मनोहरं त्यजेत्सोऽथ खरे ध्वाङ्क्षे गजे शुभः॥
श्रीवत्सश्च गजे ध्वाङ्क्षे विभवो ध्वाङ्क्षके शुभः।
व्ययो न्यूनतरः श्रेष्ठो ह्यधिकश्चैव राक्षसः॥
चिन्तात्मकं व्ययं चापि ह्यायेष्वष्टसु वर्जयेत्।
पिशाचकमायसमं न कुर्याच्छुभकर्मसु॥
शृणु वत्स यथा चांशो वास्तुवेदे त्रिधा स्मृतः।
एकैकक्रमयोगो वै शुभश्चाशुभ उच्यते॥
यदुक्ता मूलराशौ च ह्यायार्थेषु फलं कृतम्।
तत्र राशौ व्यये मिश्रे गृहनामाक्षराणि च॥
गुणैर्भक्ते व्यये शेषसंशकं त्रिविधं विदुः।
इन्द्रो यमश्च राजा च त्रिभिर्नामभिरंशकाः॥
प्रासादप्रतिमालिङ्गे जगतीपीठमण्डपे।
वेदीकुण्डश्रुचु चैव इन्द्रश्चैव ध्वजादिषु॥
चैत्राद्धिसंक्षा? नागेन्द्रे गणाध्यक्षे च भैरवे।
ग्रहमातृगणे देव्यामादित्ये च यमांशकः॥
पुरप्राकारनगरखेटकूटे च कर्वटे।
हर्म्ये च राजवेश्मादौ शस्तो राजा तथा मतः॥
स्वर्गादिभोगयुक्तानां नृत्यगीतमहोत्सवे।
प्रजावने च पाण्डित्ये इन्द्रांशश्चोत्तमो मतः॥
विविधं च वणिक्कर्म मद्यमांसादिकं तथा।
इत्युक्तं क्रमतश्चेत्थं प्रशस्तं च यमांशके॥
गजाश्वरथक्रीडायां यानजंभानकादिके।

स्वर्गादितुल्यभोगाश्च राजांशक उदाहृताः ॥
त्र्यक्षराणि त्रिभेदाश्च त्रिदेवास्त्रिहुताशनाः ।
त्रयः कालास्त्रिसन्ध्याश्च रजःसत्वतमस्त्रयम् ॥
प्रमाणत्रयमेवं च ज्येष्ठमध्याधमैः क्रमात् ।
त्र्यंशकं तु समानीय वास्तुवेदभवं ततः ॥
गणयेत्स्वामिनक्षत्राद्यावदृक्षं गृहस्य च ।
नवभिस्तु हरेद् भागं शेषास्ताराः प्रकीर्तिताः ॥
शान्ता मनोहरा क्रूरा विजया कलिका तथा ।
पद्मिनी राक्षसी वीरा ह्यानन्दा नवमी स्मृता ॥
शान्ता शान्तिकरी नित्यं मनोह्लादा मनोहरा ।
क्रूरा प्रवर्जिता प्राज्ञैश्चौराग्न्यादिभयङ्करी ॥
विजया जयकल्याणा कलिका कलहप्रदा ।
पद्मया प्राप्यते सौख्यं महत्तीर्थफलं तथा ॥
राक्षसी च तथा घोरा निशायां भयदायिनी ।
वीरा सौम्या भोगदा च ह्यानन्दानन्दकारिणी ॥
एवं नवविधाकारा निराकारा हि तारकाः ।
क्षीणश्चन्द्रो यदा वारे भवेत्तारा बलप्रदा ॥
क्रूरा च कलिका चैव राक्षसी तु तृतीयका ।
क्रूराद्या इति वै तिस्रो वर्जयेच्छुभकर्मसु ॥
शान्ता मनोहरा चैव विजया पद्मिनी तथा ।
वीरा नन्देति षट्तारा नित्यं कल्याणकारिकाः ॥
करराशिहतोत्था ये भागैर्हृष्टं तथोऽष्टभिः ।
आधिपत्यं भवेच्छेषं नाम्ना च सदृशं फलम् ॥
वित्तत्य ? कनकश्चैव धूम्रको विजयः स्वरः ।
बिडालविजयौ चैव दन्तः कान्तस्तथा मृगः ॥
विषमआया भवेत्सप्त आयहीना व्ययाः शुभाः ।
आधिपत्यं समं शान्तं शुभदं सर्वदा नृणाम् ॥
अष्टभिश्च हते क्षेत्रे फले षष्टिविभाजिते ।
लब्धे दशगुणे जीवो मृत्युर्वै भूतभाजिते ॥
पृथिव्यापस्तथा तेजो वायुराकाशमेव च ।
पञ्च तत्त्वानि प्रोक्तानि विभक्तानि स्युरन्तके ॥
अप्सु चाद्भिर्भवेन्मृत्युस्तेजस्यग्निबलं भवेत् ।
वायुर्वायुकरो देहे ह्याकाशे शून्यता भवेत् ॥
धनधान्येषु नष्टेषु देहः पतति जर्जरः ।
इत्थं मृत्युः प्रभवति पञ्चतत्त्वविनाशतः ।

अयोग्यं ग्रहनक्षत्रं ताराचन्द्रसौम्यादिकम् ॥
प्रीतिरायुश्च मृत्युश्च चिरं नन्दति चेद्भुवाः ।
त्रिभिः श्रेष्ठैस्तु श्रेष्ठं स्यात् पञ्चभिश्चोत्तमोत्तमम् ॥
सप्तभिः सर्वकल्याणं नवभिर्धनसंपदा ।
न षट्काष्टकं त्रिकोणं द्वादशीद्वितीयाष्टमी ॥
न चाष्टद्वादशे दृष्टी तारा त्रिपञ्चसप्तमी ।
न द्वितीयांशकं कुर्यात् तथा चाष्टमसायकम् ॥
न दृष्टस्तथा चन्द्रं नववास्तुककर्मणि ।
नाधिकस्तु व्ययः कार्यो न वेदा विमला ग्रहाः ? ॥
न स्वकुलस्याल्पविदिष्टं? न राशिवर्णवाहनः ।
पदे पूज्याः स्थिताः सर्वे हिंसन्ति स्वपदे स्थिताः ।
ग्रहा गावस्तथा विप्राः शापानुग्रहकारकाः ॥

पताकादिषट्छन्दांसि

षट्छन्दांसि   मेरुश्च खण्डमेरुश्च पताका सूचिका तथा ।
स० सू० २६.६०   उद्दिष्टं नष्टमिति षट् छन्दांसीह प्रचक्षते ॥
मेरुविन्यासः   एकाद्येकोत्तरान् कोष्ठान् विन्यसेदिच्छयात्मनः ।
२६. ६१–६३   आद्यादारभ्य तद्वृद्धिर्यथा स्यात् पार्श्वयोः समम् ॥
मेरोरेकाधिका सङ्ख्या शरावस्येव चाकृतिः ।
प्रथमे कोष्ठके रूपमन्तं यावच्च पार्श्वयोः ॥
आसन्नोर्ध्वस्थयोरन्यैस्त्वेन्मध्ये सङ्कलितं पृथक् ।
तस्मिन्निष्टविकल्पानां सङ्ख्या स्याद्वृत्तपङ्क्तिगा ॥
खण्डमेरुः   खण्डमेरुं तु विन्यस्येत् तद्वदेकपार्श्वतः ।
२६. ६४–६५   प्रवृद्धैः कोष्ठकैस्तत्राप्यङ्काः प्राग्वत् फलं तथा ॥
अथापरः खण्डमेरुः कोष्ठांस्तन्मेष्टसङ्ख्यया ।
कृत्वैकापचितान् तानविभागापचितानधः ॥
पताका   एकाद्येकोत्तरानङ्कानाद्यपङ्क्तौ निवेशयेत् ।
२६. ६६–७०   अन्यासु पङ्क्तिष्वाद्यान्तं शून्या (न्याःना) येषु कल्पयेत् ॥
द्वितीयेषु च कोष्ठेषु तासामेकैकमावपेत् (?) ।
द्वितीयायां तृतीयादिकोष्ठकेषु यथाक्रमम् ॥
विकल्पयोगजानन्यान्पूर्वयोगतन्नवान् ।
फलं विकल्पयोगोऽप्यनेकस्मिन् परिकल्पयेत् ॥
एकाधिकान्तनीष्टायाः सङ्ख्यायास्त्रिचतुर्गतिकेत् ।

कोष्ठाने (कांच?तांश्च) रूपादींस्तन्मध्ये द्विगुणोत्तरान् ॥
एकोनं पृष्ठतस्तेषामेकं द्विगुणमग्रतः ।
नातिक्रामेत् परां सङ्ख्यां पताकाछन्द उच्यते ॥

सूची
२६. ७१–७३

तद्विनेष्टाद्यगा सङ्ख्येत्येकाद्यैस्तैस्ततो गृहे ।
न्यस्ताङ्कसङ्ख्याः सङ्ख्याः स्युरलिन्दाद्यैः प्रकल्पिताः ॥
एकैकमिष्टस्थानेषु लिखेत् सैकेष्वतः परम् ।
अन्त्या(द?द्) ते पूर्वपूर्वयुक्तेनायोजयेत् परम् ॥
अन्त्यादारभ्य तद्वनावकाद्येषु (?) च पर्ययात् ।
अलिन्दादिषु यत्र स्यात् सङ्ख्या सूचीं तु तां विदुः ॥

उद्दिष्टम्
२६. ७४–७५

उद्दिष्टे स्थापयेत् सङ्ख्यामुद्दिष्टां सम्भ (वे?जे) च ताम् ।
दलयेद् रूपयुक्तां तु दलयेन्नाम सम्भवेत् (?) ॥
लघुस्वरूपदलने सैकार्धे करणे गुरुः ।
यावदिष्टपदाप्तिः स्याल्लघवोऽलिन्दकोदयः ॥

नष्टम्
२६. ७५–७७

कृत्वा छन्दःसमुद्दिष्टं तदन्ते लघुनि द्विकम् ।
न्यसेदेकं गुरूणां च द्विगुणं द्विगुणं ततः ॥
व्यत्ययाल्लघुनः स्थाने द्विगुणादेककं गुरोः ।
कुर्यात् तमाद्यस्थानाङ्कसङ्ख्यां नष्टे गृहं भवेत् ॥

तेभ्यो गृहमूषा-संख्यादि ज्ञानम्
२६. ७८–८०

प्रास्यैकं कोष्ठमेकैकवृद्ध्या न्यस्येदूर्ध्वं पङ्क्तयो यावदिष्टाः ।
इष्टानेकादींल्लिखेदानुपूर्व्या कर्णेनाधः शून्यरूपे च दद्यात् ॥
कर्णस्थाङ्कः श्लेषतोऽङ्के भवेद् यस्तं विन्यस्येत् कोष्ठकेषु क्रमेण ।
उद्दिष्टाङ्को भद्रसङ्ख्यानि मध्ये, याभ्यः कर्णश्लेषतो मूषिकास्ताः ॥
एकादिषु द्विगुणितेष्विह यावदिष्ट मूषाग्रगव्युपहितेष्विह तेषु विद्यात् ।
उद्दिष्टवेश्मकृतनिर्गममार्गमूषासत्काङ्क सैकयुतिनिर्मितसङ्ख्यमोकः ॥

अ० पृ०
गृहप्रासादसंभूत-षट्छन्दा०
६८. १–४

छन्दश्च कथितं देव सर्वशास्त्राद्यसंभवम् ।
अन्यत्र छन्दभेदांश्च कथयस्व परमेश्वर ॥
गृहप्रासादसम्भूताश्छन्दाः षट्संज्ञकाः स्मृताः ।
कथयस्त्र प्रसादेन तेषां निर्णयमादितः ॥
मेरुश्च खण्डमेरुश्च पताका सूचिका तथा ।
उद्दिष्टं नष्टमित्युक्ताश्छन्दाः षड्बुधसम्मिताः ॥
एषां प्रस्तारसन्दोहं मम भ्रान्तिहरं परम् ।
त्वत्प्रसादेन देवेश छन्दशास्त्रसमुद्भवम् ॥

छन्दादिनिकाशो-संख्याधिकारः ।
६८.५–२५

प्रोक्ता भेदाश्छन्दसां षट् त्रिपुरान्तवेदोद्भवाः ।
भेदे शून्यं त्र्यशून्यं वेदाशू उपाङ्ग वध्रकशवः ? ॥
खशून्या भवेदमुक्ता सङ्ख्यामिति छन्दोद्भवा ।
प्रयुक्तशास्त्रछन्देषु भेदाश्च षड्विधाः क्रमात् ॥

लक्षणालङ्कारयुता भिन्ना अर्थार्थतस्तथा।
भिन्नास्तथैकाक्षरत इत्थं छन्दसमुद्भवः॥
श्रुतिस्मृतिपुराणानि मन्त्रमुद्राक्षराणि च।
मेरुच्छन्दसमुत्पन्नमाब्रह्मभुवनान्तकम्॥
माडमौडशुद्धशृङ्गतुङ्गारसिंहकादिकाः।
प्रोक्ता च राजवेश्मादौ मेरुच्छन्दसमुद्भवाः॥
आनकणाभिसंघाटा? गृहमालाकूटपञ्जरम्।
संभूता मेरुछन्दाच्च गृहा हर्म्यादिसंज्ञकाः॥
तृणपट्टवाजिपूर्णखण्डपाण्डव एव च।
प्रयुक्ता मेरुच्छन्दादौ वास्तुविद्भिरुदाहृताः॥
लतिना नागरा भौमा द्राविडाश्च विराटकाः।
सावन्धारा विमानाख्या मेरुच्छन्दसमुद्भवाः॥
स्तम्भगर्भतीर्थमाना खण्डा वेणुकलादिकम्।
मेरुच्छन्दोद्भवा रेखाः प्रोक्ताश्च सुरवेश्मनाम्॥
तथैकत्रिपञ्चसप्तनवशाखसमुद्भवम्।
प्रयुक्तं द्वारविधानं वास्तूपदेशका विदुः॥
गूढो नृत्यश्चद्रालोको भद्रावलोकनादिकाः।
चतुःषष्टिः समाख्याता मण्डपा मेरुछन्दतः॥
पद्मनाभिसभामार्गमन्दारभिन्नमिश्रकम्।
षड्विधं च वितानं स्यात् मेरुच्छन्दादुदाहृतम्॥
कर्णजा भ्रमजाश्चैव भद्रजा गर्भजास्तथा।
मध्यजाः पार्श्वजाः ख्याताः शालाश्च मेरुच्छन्दतः॥
वेदोबन्धं श्रीबन्धाख्यं पङ्कजं भद्रकं तथा।
सुभद्रं तारकं पीठं मेरुच्छन्दोविनिर्गतम्॥
सुरार्चितं चाद्यनादि स्वभु वाणं चतुर्थकम्।
शक्त्याख्यं वर्धमानं च लिङ्गं मेरुविनिःसृतम्॥
वेदाश्रा वर्तुलाख्या त्रिकोणा तु षडंशका।
वेदिका पत्रिका चैव पीठिका मेरुच्छन्दतः॥
सीमा गर्भस्तथा द्वारं तलकोर्ध्वविभक्तिकम्।
अर्चा च षड्विधा प्रोक्ता मेरुच्छन्दसमुद्भवा।
नगरं च पुरं ग्रामः खेटः कूटश्च कर्व्वटः।
एते च षड्विधा ज्ञेया मेरुच्छन्दविनिर्गताः॥
वापीकूपतडागं च रथयन्त्रचक्रादिकम्।
प्रयुक्तं मेरुच्छन्देषु वास्तुविद्भिरुदाहृतम्॥
वेदीसिंहासनं छत्रं शय्याकवचमायुधम्।

वास्तुवेदे समाख्यातं मेरुच्छन्दसमुद्भवन् ॥
रथवीथ्यन्तरमार्गाश्च षट् पन्थान एव च।
प्रयुक्ता वास्तुविद्भिश्च मेरुच्छन्दसमुद्भवाः ॥

मेरुछन्दः
६८. २६—४०

पृथ्व्याकारो यथा छन्दो मैर्वाकारसमुद्भवः।
षड्विधं मेरुच्छन्दश्च षट्त्रिंशच्छन्दभेदकाः ॥
भेदैस्तत्र त्र्यष्टशतैर्दशभिर्गुणितैस्ततः।
चतुर्विंशत्सहस्राणि छन्दभेदाश्च सङ्ख्यया ॥
इन्द्रोद्भवक्षमावृद्धी भूतकोणान्तमध्यमैः ? ।
इषुं प्राणेषु भजन्ती प्रत्येकविषमेपदम्? ॥
षड्भिर्नभशद्वैः कोटिर्मेरुच्छन्दे तु सङ्ख्यया।
तत्रोक्तमेवप्रमाणं सृष्टाम्भोजप्रकाशिना ॥
मेरुर्मेरूपमः कार्यः शरावस्येव चाकृतिः।
सृष्टिस्तदुद्भवा सूत्रपात्रे पात्रमिवापरम् ॥
मेरुश्च खण्डमेरुश्च पताका सूचिका तथा।
उद्दिष्टं नष्टमिति षट् छन्दांसीह प्रचक्षते ॥
मृत्युभीतैः पुरा देवैरात्मनश्छन्दनायकैः।
संस्मृतानीह छन्दांसि छादितैस्तैस्ततो महाः? ॥
छन्दे छन्दं समुद्दिष्टं वाससी कृतिरेव च।
छन्दोभिरावृतं सर्वं वन्द्यं सर्वत्र नान्यथा ॥
व्योम्नः पतते विन्दु?पतितो सविन्दुगर्भतो भवेत्।
गुरुर्लघुर्लतायांश्च तस्य चाष्टौ समुद्भवाः ॥
आद्यगुरोरधो ह्रस्वं पुनः शेषं यथोपरि।
अङ्कभिः पूरयेत् पश्चाद् यावत् सर्वहृतं पदम् ॥
गुरोरधस्ताच्च गुरुं निधाय शेषं समानं परिलिख्य सम्यक्।
खण्डं प्रकुर्याद् गुरुपूरणार्थं यावत्पदं सर्वलघुस्थमेते ॥
भवन्ति प्रस्तारगताश्च एते षट् सप्तमीप्रत्यय वै गृहाणाम् ?
ये नैव जानन्ति गुरूपदिष्टान् ते सूत्रधारा रिपवः प्रजानाम् ॥
एकाद्येकोत्तरान् कोष्ठान् विन्यसेदिच्छयात्मनः।
आद्यादारभ्य तद्वृद्धिर्यथास्यात्पार्श्वयोः समम् ॥
मेरोरेकाधिका संख्या शरावस्येव चाकृतिः।
प्रथमे कोष्ठके रूपमन्तं यावच्च पार्श्वयोः ॥
आसनोर्ध्वस्थयोर्न्यस्येन्मध्ये सङ्कलितं पृथक्।
तस्मिन्निष्टविकल्पानां सङ्ख्या स्यादन्त्यपङ्क्तिगा ॥

खण्डमेरुः
६८.४१—४९

खण्डमेरुं तु विन्यस्येत् तद्वदेकैकपार्श्वतः।
प्रवृद्धैः कोष्ठकैस्तत्राप्यङ्काः प्राग्वत् फलं यथा ॥

अथापरः प्रस्तरेण कोष्ठांस्तत्रैकसङ्ख्यया ।
कुर्यादेकाधिकान् वामाविन्यासादधिकाङ्कः ॥
एकाद्येकोत्तरानङ्कानाद्यपङ्क्तौ निवेशयेत् ।
अन्यासु पङ्क्तिष्वाद्यान्तं शून्यानाद्येषु कल्पयेत् ॥
द्वितीयेषु च कोष्ठेषु तावानेकैकं स्थापयेत्
द्वितीयायां तृतीयादिकोष्ठकेषु यथाक्रमम् ॥
विकल्पयोगजानन्यान्स्वोर्ध्वोपान्तसमन्वयात् ।
फलं विकल्पयोगोऽयमेकस्मिन् परिकल्पयेत् ॥

पताकाछन्दः
२६–२७

एकादिकानभीष्टायाः सङ्ख्यायास्तिर्यगालिखेत् ।
कोष्ठानितांश्च रूपाद्यांस्तन्मध्ये द्विगुणोत्तरान् ॥
एकोनं पृष्ठतस्तेषामेकं द्विगुणमग्रतः ।
नातिक्रमेद् परां सङ्ख्यां पताकाछन्द उच्यते ॥
एतन्माकादुकाख्यातं पताकानामकं विदुः ॥

सूचीछन्दः
४८–५०

तद्विनेष्टाद्यया सङ्ख्येयैकाद्यैस्तैस्ततो गृहे ।
न्यस्ताङ्कसङ्ख्यया सङ्ख्या गुरुलघ्वादिभेदकल्पिताः ॥
एकैकमिष्टस्थानेषु लिखेत् सैकैकतः परम् ।
अन्त्याद्ये पूर्वपूर्वयुक्तेनायोजयेत् परम् ॥
अन्त्याद्यन्त्यं तद्वान्तौ द्वेकाद्येषु च पर्ययात् ।
आदिन्यादिषु यत्र स्यात् सङ्ख्या सूचीं तु तां विदुः ॥

उद्दिष्टछन्दः
५१–५४

उद्दिष्टे स्थापयेत् सङ्ख्यामुद्दिष्टां सम्भवेच्च तान् ।
दलयेद् रूपयुक्तां तु दलयेन्मान सम्भवैः ? ॥
लघुस्वरूपदलने सैकार्धे करणे गुरुः ।
यावदिष्टपदाप्तिः स्यात्तावदुद्दिष्टकोदयः ॥
कृत्वा छन्दः समुद्दिष्टं तदन्ते लघुनि द्विकम् ।
न्यसेदेकं गुरुणां च द्विगुणं द्विगुणं ततः ॥
न्यस्यान्त्यगुरुः स्थाने द्विगुणादेककं गुरोः ।
कुर्यात् तदाद्यस्थानाङ्कसङ्ख्यं नष्टे गृहं भवेत् ॥

सामान्यम्
५५–५७

प्रातस्यैकं कोष्ठमेकैकवृद्ध्या न्यस्येदूर्ध्वपङ्क्त्यां यावदिष्टाः ।
इष्टानेकाद्यांल्लिखेदानुपूर्व्या कर्णेनाधः शून्यतत्त्वे च दद्यात् ॥
कर्णस्थाङ्कः स्वेतरतोऽङ्कं भवेद्यत्तं विन्यसेत् कोष्ठकेषु क्रमेण ।
वह्न्याङ्का मङ्गसङ्ख्यानि मध्ये याम्याः कर्णरेखतो रूपिकान्ताः ॥
एकादिषु द्विगुणितेष्विह यावदिष्टमूर्ध्वक्रमस्तु महितेष्वथ तेषु विद्यात् ।
वह्निष्वेरसकृद्विनिर्गममार्गमूर्ध्वाधिकाद्य सैक्युतिनिर्मितसङ्ख्यालोकः ॥

टि०:—ग्रन्थस्य अग्रे नास्त्युल्लेखः ।

द्वितीयः खण्डः

(ग्राम-नगर-दुर्गादिवास्तु)

प्रथमः पटलः

(औपोद्घातिकः)

देशचयने वि० वा०	वास्तुभूर्विविधा ख्याता स्थलभेदात्क्वचित्क्वचित् ।
वास्तुभूमिः प्रशस्ता	चतुरश्रायता भूमिर्वर्तुला च त्रिकोणगा ।
अप्रशस्ता	मर्दलाकारवत्येषा प्रशस्ता वास्तुकर्मणि ॥
७.२ —३	निम्नोन्नता च या भूमिश्शिरोहीना च भूरपि ।
७. ४	वक्राकृतिश्च भूरन्या वर्ज्या सर्वेषु कर्मसु ॥
खेटादि-पुर-	खेटस्य वास्तुभूमिस्तु प्रायः काननमध्यगा ।
विशेष—	शबरैश्च पुलिन्दैश्च संयुता मांसजीविभिः ॥
वास्तु-भूमिर्यथा—	वास्तुभूमिः खर्वटस्य नदीतीरगता मता ।
८.२०;२२-२३;	रसालसालबकुलैस्तिन्त्रिणीवेणुपाटलैः ॥
२६-२७;३०-३१॥;	कदम्बैर्नारिकेलैश्च श्रीपर्णैस्तिलकैरपि ।
३३-३५॥	छायावृक्षसमाकीर्णा निष्कुटारामसंवृता ॥
इति दिक्	वनमध्यङ्गता वापि गिरिसानुसमीपभाक् ।
	आरामभूमध्यगता पल्लीभूमिस्तु सौख्यदा ॥
	मधूकैस्तिन्त्रिणीभिश्च रसालैर्नारिकेलकैः ।
	पनसैश्च शिरीषैश्च संवृता च समन्ततः ॥
	घोषभूमिश्शैवलिनीतीरभाग्वा वनान्तभाक् ।
	गिरिसानुगता वापि सर्वकालेषु सौख्यदा ॥
	वानीरबिल्वकुन्दाद्यैर्मालत्यादिभिरन्विता ।
	चूतादि फलवृक्षैश्च सर्वतस्तु समावृता ॥
	सस्यभूम्यावृता विष्वक्सुखग्राह्यजलान्विता ।
	आभीरभूश्शैवलिनीतीरभाग्वा वनान्तभाक् ॥
	सर्वतस्सूक्ष्मसिकता पुष्पगन्धाद्यगन्धिनी ।
	मण्डलाख्यतृणैर्वासैरन्यैश्च बहुभिर्युता ॥
	नारिकेलरसालादिफलवृक्षैस्समन्विता ।
	सर्वतो हस्ततोयाढ्या भूमिरेवंविधा मता ॥
	त्रिशद्वीथियुता क्षुद्रवीथियुक्च समन्ततः ।
	वापीकूपतटाकाद्यैरन्विष्टा सुखदायिनी ॥

सं० सू०
देशाः देशमूल्यश्च
श्लो. १—६

देशश्च देशमूल्यश्च समासात् नव सम्प्रति ।
तत्संख्या तद्विभागश्च प्रोच्यन्तेऽवहितः शृणु ॥
देशः स्याज्जाङ्गलानूपसाधारणतया त्रिधा ।
त्रिविधस्याप्यथैतस्य यथावल्लक्ष्म कथ्यते ॥
दूराम्बुगिरिप्रायो ह्रस्वकण्टकिपादपः ।
रूक्षोऽल्पचण्डपवनः क्रूरखगस्तु जाङ्गलः ॥
निम्नो भूरिजलः स्निग्धो बहुमत्स्यामिषो हिमः ।
स्यादानूपः सरित्प्रायः स्निग्धोच्छ्रितबहुद्रुमः ॥
यः पुनर्नातिशीतोष्णः स्याद् देशद्वयलक्षणः ।
स साधारण इत्युक्तो देशो देशविशारदैः ॥
जाङ्गलादिषु देशेषु त्रि (पुण्ये ष्वन्ये) षु स्वलक्षणैः ।
युक्ताः षोडश विज्ञेया भूमयः प्रविभागशः ॥
शालिवप्रालिनी भोग्या सीतागोचररक्षिणी ।
अपाश्रयवती कान्ता खनिमत्यासवारिणी ॥
वणिक्प्रसाधिता द्रव्यसम्पन्ना निम्नवासिनी ।
आश्रेणिमुख्या गव्यसम्पन्ना देवमातृका ॥
धान्या हस्तिवनोपेता पुष्टा चेति षोडश ।
पुरः संज्ञाभिरुद्दिष्टा लक्ष्मासामथ कथ्यते ॥

पुर-निवेशे
मुख्य-देशचयनम्
श्लो. २३—३६

चातुर्वर्ण्योल्लसल्लक्ष्मपुष्टद्रुमलतावृतैः ।
वल्लक्षिताः पृथुशिलैः समन्तादवनीधरैः ॥
तीर्थावतारकान्ताभिः स्वादुतोयाभिरावृताः ।
नदीभिः पुलिनप्रान्तैर्विचित्रद्रुमशालिभिः ।
कोकिलालापमुखरैर्मञ्जुचालिमालिभिः ।
विचित्रफलपुष्पाढ्यैः काननैरुपशोभिताः ॥
दलत्कुवलयश्रेणिस्वच्छपद्मसुहारिभिः ।
सरोदीर्घिकाद्यैर्भूषिताः स्वच्छवारिभिः ॥
सस्यैः सुगन्धिभिः स्वादुशालैः क्रान्तैरसङ्कुलैः ।
देशैरजातसामन्तैः सरितिस्रादिभिर्वृताः ॥
निष्कण्टकारण्यवनीकैः प्रभूतयवसेन्धनैः ।
विभक्तक्षेत्रसीमान्तैर्गोचरैरुपशोभिताः ॥
स्थले वृक्षसमुद्राणामन्तरेषु वसुन्धराः ।
प्रत्यन्ते समासन्नस्वादुशीतलवारयः ॥
दुरासनानभूम्या यास्त्वथानेकाश्रयान्विताः ।
संक्लिश्यासन्निवृत्तं मनश्च रमयन्ति याः ॥
तास्वेवं पुरमुख्यासु महीषु विनिवेशयेत् ।

यथास्थानं जनपदान् खेटग्रामपुरादि च ॥

८. ४०—४३ स्निग्धाः सारभृतः शुद्धा प्रदक्षिणजलाशयाः ।
बहूदकास्तरुच्छन्ना निबिडा प्रागुदक्प्लवाः ॥
दूर्वास (स्वौ?श्यौ) षधीमुञ्जकुरुन्दकुशवल्कलैः ।
परितः परिणद्धाश्च स्वादुस्वच्छस्थिरोदकाः ॥
वास्तुयज्ञामरस्थानाद्यारामोद्यानसंभृताः ।
तटाकवापीस्थानैश्च याः समन्तादलङ्कृताः ॥
या वाहनानां सुखदा मिथुनानां रतिप्रदाः ।
पुरार्थं ताः प्रशस्यन्ते भूमयो जनितश्रियः ॥

शिल्प० (चतुर्धा भूमिः) ३. ४—१२
पूर्णा सुपा च तथैव भद्रा धूम्रा च भूमिर्विहिता चतुर्धा ।
वक्ष्ये च तासामपि लक्षणानि संक्षेपतो भूमिपरिग्रहार्थम् ॥
प्लक्षन्यग्रोधनिम्बार्जुनबकुलकुलत्था (प?स) नाशोकनिष्पा-
वाङ्कोलैर्मालतीचम्पकतिलखदिरैः कोद्रवैर्मुद्रिता वा ।
भूमिर्या भूधराधीश्वरशिखरगता पार्श्वसंस्थाऽथवाद्रेः
पूर्णा सा पुष्टिदात्री सुरनिलयसभा कल्पने स्वल्पतोया ॥
कर्पूरागरुनालिकेरतिलकैर्दर्भैः कदम्बार्जुनै-
र्मालेयैः क्रमुकेक्षुकेतककुशैः कुन्दारविन्दोत्पलैः ।
पूर्वोदक्प्लवशालिनी बहुजला वा या दरीदृश्यते
सेयं शान्तिकरी सुरेशयजने सूक्ता सुपद्मा मही ॥
तीरं वारिनिधेः श्रिताथ सरितस्तीर्थस्य वा दक्षिणे
व्रीहिक्षेत्रविचित्रिताप्यदिशि यज्ञार्हाङ्घ्रिपैरङ्किता ।
कीर्णा पुष्पफलप्रवालतरुभिर्योद्यानहृद्यापि वा
भद्रा सा परिगीयते वसुमती प्रीतिप्रदा यज्वनाम् ॥
अर्कैर्वेणुविभीतकैः स्नुहियुतैः श्लेष्मातकैः पीलुभिः
संकीर्णा बहुशर्करा च कठिना गर्भान्विता सोषरा ।
गृध्रश्येनवराहवायसशिवाशाखामृगैः सन्ततं
जुष्टा यष्टुरनिष्टदा निगदिता धूम्रा मही सूरिभिः ॥
वारुण्यैन्द्री तथाग्नेयी वायवी भूश्चतुर्विधा ।
तद्भवा च शिला ज्ञेया तन्नामा शुभदा शुभा ॥
या कोमलतरुव्राता स्वतः पुष्पितकानना ।
जलाशयैश्च सर्वत्र युक्ता भूर्वारुणी स्मृता ॥
या क्षीरवृक्षबहुला सौम्ये यस्या जलं महत् ।
व्रीहिक्षेत्रं च याम्यायां सा माहेन्द्री क्षितिःस्मृता ॥
गृध्रकङ्कवराहर्क्षश्येनगोमायुवायसैः ।
संयुक्ता दूरपानीया भूराग्नेयी विनिन्दिता ॥

अश्वस्नुहिकलिङ्गार्कपीलुश्लेष्मातकण्टकैः ।
युक्ता या निर्जला भूमिरशुभा वायवी स्मृता ॥

भूमिसंग्रहः भूपरीक्षा मृत्तिकापरीक्षा च।

वि० वा० भूमिसंग्रह-भू-परीक्षा च ५. १—२७॥

पुरा भूमिरियं धात्रा विशाला च वसुन्धरा ।
जलधारान्विता सृष्टा सशैलवनकानना ॥
हिमवद्विन्ध्यमलयैरन्यैः कुलमहीधरैः ।
कनकाद्यैर्दिव्यलोहैर्गर्भिता च समन्ततः ॥
तथापि भूगर्भसारात् क्वचित्स्वादुरसान्विता ।
क्वचिद्रसेन हीना च क्वचिदुष्णा च शीतला ॥
क्वचिद्भीकरसत्वाढ्या क्वचित्सत्वखगावृता ।
क्वचिदत्यन्तसुखदा क्वचिदुद्वेगकारिणी ॥
इत्येवं बहुधा जाता कालभेदेन भूरियम् ।
परीक्षयेद्वास्तुभूमिमतस्तल्लक्षणान्विताम् ॥
उत्तमा मध्यमा भूमिरधमा चेति सा त्रिधा ।
विभक्ता गुणभेदेन शास्त्रज्ञैः पूर्वसूरिभिः ॥
रसवर्णस्पर्शगन्धैरन्यैरपि च लक्षणैः ।
परीक्षयेदिमां भूमिं वास्तुयोग्यां बुधोत्तमः ॥
माधुर्यमृत्तिका भूमिर्देवविप्रहितप्रदा ।
तथोदुम्बरवृक्षाढ्या श्वेतवर्णा च भूरपि ॥
(उदीच्यां च जलोपेता भूरियं चोत्तमा मता) ।
कषायमृत्तिका भूमी रक्तवर्णा च भूरपि ॥
पूर्वभागजलोपेता तथाश्वत्थद्रुमान्विता ।
विपुला लोहयुग्भूमिः क्षत्रियाणां हितप्रदा ॥
नातिकृष्णा न रक्ता च प्लक्षद्रुमसमन्विता ।
दक्षिणायां जलोपेता नातिनिम्नोन्नतस्थला ॥
भूरियं वैश्यजातानां बलसंपत्करा मता ।
(कटुमृत्स्ना कृष्णवर्णा वटवृक्षसमन्विता ॥
वारुण्यामुदकोपेता शूद्राणां क्षेमकारिणी) ।
इत्येवं जातिभेदेन कथितं भूमिलक्षणम् ॥
श्रीवृक्षैर्निम्बकाशोकै रसनैः क्रमुकैरपि ।
सौवीरैरिङ्गुदीभिश्च रसालैर्वञ्जुलैरपि ॥
केसरैस्सप्तपर्णैर्वा कुद्दालैः कोविदारकैः ।
आरग्वधैर्मधूकैर्वा प्लक्षैर्वा पाटलैस्तु वा ॥
श्रीपर्णैर्वा शिरीषैर्वा पूतिकैः खदिरैस्तथा ।
नदीभूर्जैर्नक्तमालैर्वेणुभिस्तिनिशैरपि ॥

नलदैर्वीरणैर्वासैर्नारिकेलैरथापि वा ।
मालत्या कुन्दलतया मुस्तादाडिममंजुलैः ॥
द्राक्षालतासमायुक्ता भूमिरेषा शुभप्रदा ॥
धेनुभिर्हरिणैर्वापि तुरगैर्वा विशेषतः ।
पारावतैः कोकिलैर्वा शुकैः कीरैस्थापि वा ॥
कारण्डैश्चक्रवाकैश्च मयूरै राजहंसकैः ।
गजैर्वा वृषभैर्वापि मेषसङ्घैर्विशेषतः ॥
भूमिरध्युषिता शस्ता सर्ववास्तुषु कीर्तिता ॥
लघुसैकतसंयुक्ता सुखस्पर्शयुतापि वा ।
निबिडा स्वादुतोयाढ्या समीपजलवर्षिणी ॥
मधुगन्धा पुष्पगन्धा सर्पिर्गन्धा च भूरपि ।
स्थिरवर्णा च भूश्शस्ता सर्ववास्तुषु कीर्तिता ॥
सा भूमिरुत्तमा ज्ञेया त्रिरात्राङ्कुरवर्धिनी ।
सा मध्यमा च विज्ञेया पञ्चरात्राङ्कुरप्रदा ॥
मन्दाङ्कुरप्रदा भूमिरधमा चेति गद्यते ।
सा वर्ज्या सर्वकार्येषु बीजानां क्षयकारिणी ॥
वर्ज्या कण्टकवृक्षैश्च तिग्मवृक्षैर्विदारकैः ।
वल्मीकेन समायुक्ता भूमिरस्थिगणैस्तु वा ॥
रन्ध्रान्विता च भूर्वर्ज्या गर्ताद्यैश्च समन्विता ।
वराहै रासभैर्व्याघ्रैस्सिंहाद्यैर्दुष्टजन्तुभिः ॥
भल्लूकैर्वनमार्जालैर्मूषकैर्वृश्चिकादिभिः ।
भूमिरध्युषिता वर्ज्या सर्ववास्तुषु हानिदा ॥
श्मशानभूसमीपस्था तुषभारैस्समन्विता ।
कम्पेन भेदिता भूमिरग्निदग्धा च सर्वतः ॥
भूमिरेवंविधा वर्ज्या कार्यज्ञैश्च शुभेप्सुभिः ।

स० सू०
भू-परीक्षा
गन्धाद्युचिता भूमिः
८. ४४-५१

कुङ्कुमागुरुकर्पूरस्पृक्कैलाचन्दनादिभिः ।
सुगन्धा मिश्रितैरेभिः पृथक्स्थैर्वा वसुन्धरा ॥
कल्हारपाटलाम्भोजमालतीचम्पकोत्पलैः ।
स्थलाम्बुप्रभवैश्चान्यैः सुगन्धा कुसुमैस्तथा ॥
गोमूत्रगोमयक्षीरदधिमध्वाज्यगन्धभाक् ।
समानगन्धा मदिरामाध्वीकेभमदासवैः ॥
शालिपिष्टकगन्धैश्च धान्यगन्धैश्च या तथा ।
प्रशस्ताखिलवर्णानामीदृग्गन्धा वसुन्धरा ॥
सिता रक्ता च पीता च कृष्णा चैव क्रमान्मही ।
विप्रादीनां हि वर्णानां सर्वेषामथवा हिता ॥

स्वादुः कषाया तिक्ता च कटुका चेत्यनुक्रमात् ।
वर्णानां स्वादतः शस्ता सर्वेषां मधुराथवा ॥
घर्मागमे हिमस्पर्शा या स्यादुष्णा हिमागमे ।
प्रावृष्युष्णहिमस्पर्शा सा प्रशस्ता वसुन्धरा ॥
मृदङ्गवल्लकीवेणुदुन्दुभीनां समा ध्वनौ ।
द्विपा (ब्द्वौ?य?श्वाब्धि) समस्वाना चेति स्युर्भूमयः शुभाः ॥

अप्रशस्ताभूमिः
स० सू०
४२-६२॥

इदानीमप्रशस्तानां भुवां लक्ष्माभिदध्महे ।
पुरादिसन्निवेशार्थं परित्याज्या भवन्ति याः ॥
भस्माङ्गारकपालास्थितुषकेशविषाश्मभिः ।
मूषकोत्करवल्मीकशर्कराभिश्च निर्भरा ॥
रूक्षा प्ररोहिणी निम्ना भङ्गुरा सुषिरोषरा ।
वामावर्तजलस्राविण्यसारा विषमोन्नता ॥
कटुकण्टकिनिःसारशुष्कनिष्फलपादपा ।
क्रव्यात्पक्षिसमाकीर्णा कृमिकीटवती च या ॥
सुकृतान्यपि भोज्यान्नभक्ष्यपानानि तत्क्षणात् ।
यस्यां विनाशमायान्ति सह तूर्यादिनिस्वनैः ॥
सरित् पूर्ववहा यस्यां पुरार्थं तामपि त्यजेत् ।
बहुनापि यतस्तत्र कालेनायाति सा पुनः ॥
वसासृङ्मज्जविण्मूत्रमलको (थ?श) पतत्रिणाम् ।
समगन्धां त्यजेदुर्वीं तैलस्य च शवस्य च ॥
सदैव धूम्रवर्णा या मिश्रवर्णाथवा मही ।
विवर्णा रूक्षवर्णा वा सा न स्यादिष्टदायिनी ॥
तिक्ताम्ललवणा चापि भूमिर्या स्वेदला भवेत् ।
तां लोकविद्वेषकरीं त्यजेत् पुरनिवेशने ॥
या रूक्षखरसंस्पर्शा सदैवोष्णा हिमाथवा ।
अनिष्टसुखसंस्पर्शा या स्यात् तामपि सन्त्यजेत् ॥
क्रोष्टूष्ट्रखरस्वाना या च निर्झरनिस्वना ।
भिन्नभाण्डसमक्रूरध्वनितापि च नेष्यते ॥
इति गन्धादिभिर्भूमिः कथितेयं शुभाशुभा ।

अ० पृ०
२१. १३-२२॥

भूमीनामष्टप्लवादि गुणदोषान् ब्रवीमि ते ।
पूर्वप्लवा धरा श्रेष्ठा ह्यायुःश्रीबलवर्द्धिनी ॥
सर्वसंपत्करी पुंसां प्रासादानां विभूतिदा ।
राज्यपूज्या सदानन्दा प्राक्प्लवाचेद्भवेन्मही ॥
आग्नेयप्लवका भूमिरग्निदाहभयावहा ।
शत्रुसन्तापदा नित्यं कलिदोऽग्निप्लवः स्मृतः ॥

नश्यन्ति पुरुषास्तत्र देवता च प्रणश्यति।
धनहानिकरो नित्यं रोगकृद् दक्षिणः प्लवः॥
प्रवर्तयेद् गृहे पुंसां रोगांश्च मृत्युदायकान्।
धनहानिं तथा नित्यं कुरुते नैऋतिप्लवा॥
पश्चिमप्लवका भूमिर्धनधान्यविनाशिनी।
शोकदाह्यं कुलं तत्र यत्र भूः पश्चिमप्लवा॥
शत्रुकर्त्री विरागा च गोत्रक्षयकरी तथा।
गृहे च कन्यकाहन्त्री सदा दुःखभयावहा॥
भुक्तं न जीर्यते तस्य मह्यां तत्र तु यो वसेत्।
एतान् दोषानावहति दोषदा वायुदिक्प्लवा॥
पूज्या लाभकरी नित्यं पुत्रपौत्रविवर्धिनी।
कामदा भोगदा चैव धनदा चोत्तरप्लवा॥
नरसौख्यसतीसत्यसौभाग्यादिविवर्द्धिनी।
धनार्थैश्वर्यसंपन्ना धर्मदेशानकप्लवा॥
सा विद्या धनसंपन्ना सर्वलोकहितावहा।
विनयाचारसम्पन्नपुत्रपौत्रादिसंकुला॥
नीरोगा दानशीला च विशिष्टजनसेविता।
पूर्वप्लवा तु या भूमिः शोभना सा प्रकीर्तिता॥
गृहप्रासादयोर्भूम्याः कथ्यतेऽनुक्रमोऽधुना।
मध्यप्लवा निकृष्टा स्यात् कनिष्ठा मध्यवर्तका॥
सर्वनाशकरी पुंसां सा भूमिस्तु निवासिनाम्।
वर्जयेद्विद्रुमां पमां तु करालां मस्तकोन्नताम्॥
चौरेभ्यो भयदा नित्यं द्रव्यनाशकरी स्मृता।
उच्छिन्ना च देवभूमी ऊर्ध्वसाधास्यतव्यही?॥
अजोष्ट्रखरसंसेव्यां वजयेत्तादृशीं महीम्।
सशल्या बहुभक्ता च ह्यूषरा शोककारिका॥
त्रिविधा स्फुटिता मृद्वी वृष्टिशुष्का रिक्ताङ्गिका।
कापदैः? अमगम्भीरा घटिका श्यत्तसिद्धिदा॥
वेणुगुल्मलताच्छाया द्विगुणा मध्यदूषिता।
त्रिगुणा पुन्नागवृक्षैः क्षीरवृक्षैश्चतुर्गुणा॥
पञ्चधाश्वत्थवृक्षैश्च षड्धा धात्री महीरुहैः।
सप्तधा पूर्णवृक्षैश्च लिङ्गच्छाया तथाष्टधा॥
एताश्छायाः परित्यज्य वेश्म कुर्यादथाभयम्।
वृक्षप्रासादयोश्छायां गृहे त्यक्ता शुभप्रदा॥
द्वयोः प्रहरयोश्छाया वृक्षप्रासादगुल्मजा।

हर्म्यगृहे तथैवं स्यादधस्तान्नैव निन्दिता ॥
अर्का अशोका अश्वत्थाः केतकीबीजपूरकाः ।
यस्मिन् गृहे प्ररोहन्ति तद् गृहं नैव वर्द्धते ॥
दाडिमं च हरिद्रां च श्वेतां च गिरिकर्णिकाम् ।
यदीच्छेदात्मनः श्रेयो गृहद्वारे न रोपयेत् ॥
त्यक्त्वा चोग्रवर्नं वृक्षं कटुकं कण्टकान्वितम् ।
अपि सौवर्णिकान्वृक्षान् गृहाश्रये न रोपयेत् ॥
न्यग्रोधोदुम्बरप्लाक्षांस्तथा वै कार्मुकादिकान् ।
वर्जयेद् गृहमाश्रित्य हर्म्यवृद्धिर्न विद्यते ॥
खर्ज्जूरी दाडिमी रम्भा कर्कन्धू बीजपूरिका ।
यस्मिन् गृहे प्ररोहन्ति तद् गृहं नैव वर्द्धते ॥
नकुलश्चोरगो यत्र क्रीडतः स्नेहत वभौ ।
तत्रस्थाने महीं खात्वा द्रव्यं तिष्ठति निश्चयम् ॥
बिडाला मूषकाः स्नेहाद्रमन्ते च परस्परम् ।
तत्र स्थाने महीं खात्वा द्रव्यं तिष्ठति निश्चयम् ॥
सर्पाश्च मूषकाः स्नेहात् क्रीडन्त्यानन्दरूपकाः ।
तत्र स्थाने महीं खात्वा द्रव्यं तिष्ठति निश्चयम् ॥
यत्र ना दृश्यते शल्यं द्रव्यं तत्र तथोच्यते ।
तत्र स्थाने महीं खात्वा द्रव्यं तिष्ठति निश्चयम् ॥
अष्ट पूर्वायता रेखा भिन्नाः पञ्च समुद्धरेत् ।
पदैरष्टाविंशतिभिर्ऋक्षसङ्ख्या तथैव च ॥
द्वारमध्ये कृत्तिका च शाखयोर्भरणीमवे ॥
चन्द्रे द्रव्यं तथा सूर्ये शल्यं चैव विनिर्दिशेत् ।
अहिबलचक्रे प्रोक्ता स्वसरो ध्याश्च केवलो ? ॥
अश्विन्यादि त्रिकं चैव आर्द्रादि पञ्चकं तथा ।
पूर्वाषाढा चतुष्कं च रेवती चोत्तरात्रयम् ॥
शशिभानि किलैतानि शिष्टानि रविभानि च ।
चन्द्रर्क्षे च स्थिते सूर्ये चन्द्रे सूर्यर्क्षसंस्थिते ॥
तत्र शून्यं भवेत्स्थानं द्रव्यशल्यविवर्जितम् ।
द्रव्यशल्यं विना त्वेवं शल्यद्रव्यादि कथ्यते ? ॥
चन्द्रः पूर्वं परं भानुस्तत्र शल्यं विनिर्दिशेत् ।
भानुः पूर्वं परं चन्द्रस्तत्र शल्यं विनिर्दिशेत् ॥
गतघटि ऋक्षहताः षष्टिहृते च शेषकम् ।
रविशशिभुक्तकालं रविचन्द्रर्क्षलग्नकम् ॥
श्वेता च ब्राह्मणी भूमी रक्ता वै क्षत्रिया स्मृता ।

पीतवर्णा भवेद्वैश्या शूद्री तु कृष्णवर्णिनी ॥
घृतगन्धा भवेद्विप्रा राज्ञी रक्तानुगन्धिनी ।
क्षारगन्धा भवेद्वैश्या शूद्री विष्टानुगन्धिनी ॥
ब्राह्मणी मधुरास्वादा कषाया क्षत्रिया तथा ।
क्षारास्वादा भवेद्वैश्या शूद्री स्यात्कटुका तथा ॥

मान०
४. १–१०

भूपरीक्षाविधिं (भूमिसंग्रहणं) वक्ष्ये शास्त्रे संक्षिप्यतेऽधुना ।
दक्षिणे पश्चिमे चैव चोन्नतं चतुरश्रकम् ॥
तद्वस्तु जायते वापि देवानां मनुजः (जां) क्रमात् ।
तुरङ्गं द्विरदं (द) वेणु (णु) वीणासाक (ग) रदुन्दुभिः ॥
धेनुभिश्च समायुक्तं (क्ता) किं च पुंनागजातिभिः ।
सरसीरुहधान्यैश्च ,पाटलीपुष्पगन्धकैः ॥
संयुक्तं (क्ता) सर्वबीजानां वर्धनं (ना) चैकवर्णयुक् ।
निविडा (ड) स्निग्धसंयुक्ता सुखसंस्पर्शना भवेत् ॥
श्रीवृक्षनिम्बसे (म्बा) शोकैः संयुक्तं (क्ता) सप्तपर्णकैः ।
सू (चू) तैश्चापि वृ (वि) षवृक्षैः संयुक्ता च समस्थले (ला) ॥
धवलं रक्तवर्णं च स्वर्णकृष्णं कपोतकम् ।
षडश्रैश्च समायुक्ता सर्वसम्पत्प्रदा धरा ॥
दक्षिणावर्तसलिला (प्र) दक्षिणाकारा वर्णनैः ।
मानवा जलिमानेन दृष्टिनीला मनोहरा ॥
कृमिवल्मीकरहिता निमूषी निष्कपालिनी ।
निरस्थि (स्थिः) सूक्तिसिकतारन्ध्रवर्जा शुभावहा ॥
पृथग्विधैश्च शूलैश्च स्थाणुभिश्च मही धृता ।
सकर्दमितवाराही विलेकं (का) सरसंयुतम् (युता) ॥
निस्तुषा निर्विभूतिश्च शर्करारहिता अपि (तापि च) ।
सा भूमिः ब्राह्मणादीनां वर्णानां संपदावहा ॥

मय०
३. ४–९॥

श्वेता रक्ता च पीता च कृष्णकापोतसन्निभा ।
तिक्ता च कटुका चैव काषायलवणाम्लका ॥
मधुरा षड्रसोपेता सर्वसम्पत्करी धरा ।
प्रदक्षिणोदकवती वर्णगन्धरसैः शुभा ॥
पुरुषा जलिमात्रे तु दृष्टतोया मनोरमा ।
निष्कपाला निरुपला कृमिवल्मीकवर्जिता ॥
अस्थिवर्ज्या न सुषिरा तनुवालुकसंयुता ।
अङ्कुरैर्वृक्षमूलैश्च शूलैश्चापि पृथग्विधैः ॥
पङ्कसङ्करकूपैश्च दारुभिर्लोष्टकैरपि ।
शर्कराभिरयुक्ता या भस्माद्यैस्तु तुषैरपि ॥

सा शुभा सर्ववर्णानां सर्वसम्पत्करी धरा।

(ब) मृत्तिकापरीक्षा

स० सू० करप्रमाणं कुर्वीत खातं तद्भूमिमध्यगम्॥
८. ६३॥–७४ ततस्तन्मृदमाकृष्य तद् तयैवानुपूरयेत्।
खाताधिकमृदुक्ता भूः श्रेष्ठा मध्या च तत्समा॥
प्रहीणखातमृत् क्षोणी हीना शस्ता न सा नृणाम्।
खन्यमाने यदा खाते तन्मृदोन्तर्विलोक्यते॥
मणिशङ्खप्रवालादि तदातिश्रेयसी क्षितिः।
सापि प्रशस्यते भूमिर्यस्यां स्युः खातपांसवः॥
तुषकेशोपलाङ्गारभस्मास्थिलववर्जिताः।
मृत्वाद्भिः खातमापूर्णं तस्मिन् पदशतं व्रजेत्॥
तावच्चेदागमेऽम्भः स्यात् तदा भूः सार्वकामिकी।
मध्यमात्रप्रहीणे स्यात् ततो हीनतरेऽधमा॥
खाते सितादिमाल्यानि यस्यां निश्युषितानि च।
यद्वर्णानि न शुष्यन्ति सा तद्वर्णेष्टदा मही
खातस्योदक्प्रभृतिषु दिक्षु प्रज्वालयीत वा।
दीपान् यस्यां चिरं तिष्ठेत् तद्वर्णेष्टप्रदा हि सा॥

अ० पृ० भूमेः परिग्रहं कृत्वा सद्भावनिमितिक्रमैः।
४१. ३–१२ दिव्यानि वीक्ष्य भौमानि शुभान्यशुभकानि च॥
शुभेषु प्रस्थिते सिद्धिर्विजयः स्यान्महोत्सवः।
अशुभेषु निवर्तेत न गच्छेत् पदमग्रतः॥
तन्मध्ये तथा धान्तं शकुनानि न लक्षयेत्।
चेष्टायुक्तिसमाख्यातं तत्फलं शकुनोत्तमैः॥
आचार्यैः सूत्रधारैश्च यजमानैश्च संयुतः।
त्रयश्च साधकैश्चैव कर्मकारादिसंयुताः॥
आचार्यश्च स्वयं ब्रह्मा शिल्पी चैव जनार्दनः।
यजमानस्तु शक्रः स्यात् त्रिभिः कर्म प्रवर्तते॥
तत्र भूमिं समीकृत्य त्रयः सह साहायकैः।
दिशाक्षेत्रबलिं दद्युः कुर्युः खातपरीक्षणम्॥
हस्तमात्रं खनेद् भूमिं तस्यान्तश्च तपांशुकम्।
ततः खातं समाशोध्य पूरयेत् पांशुना वृतम्॥
अधिके पांशुके श्रेष्ठा मध्यमा समपांशुके।
हीनपांशौ कनिष्ठा च ज्येष्ठा मध्याधमा त्रिधा॥
खातं तत्रोदकैर्भृत्वा शिल्पी शतपदं व्रजेत्।
अर्धे समे च पादोने कनिष्ठोत्तममध्यमाः॥

पुण्योदकैर्भृतं खातमूर्ध्वं वाणं समुत्क्षिपेत् ।
भृते मही चोत्तमा स्यान्मध्यमाङ्गुलहीनतः ॥
द्व्यङ्गुलोने कनिष्ठा स्यात् त्रिविधं भूमिलक्षणम् ।
अल्पोदकेऽतिहीना स्याद्वर्जयेदधमाधमम् ॥
ततः सम्पूरयेद्वत्स सुदिने सम्प्रधार्य ते ।
परीक्षयेच्च भूम्याद्यं वर्णगन्धैश्च स्वादतः ॥

मान० भूमिसंग्रहणं सर्वं (भूपरीक्षाविधानं च) शास्त्रे संक्षिप्यतेऽधुना ।

४. १–१८॥ तदुक्ताकारनादादिवर्णैर्युक्तं महीतलम् ॥

स्वीकृत्य शिल्पिकुशलो बलिं दत्वा यथाविधि ।
पुण्याहे वाचयेत्पश्चात्तूर्यमङ्गलनिस्वनैः ॥
गच्छन्तु सर्वभूतानि राक्षसा देवता अपि ।
अस्मात्स्थानान्तरं यायात्कुर्यात्पृथ्वीपरिग्रहम् ॥
जप्त्वा (पेन्म) मन्त्रमिमं पश्चाद्विहिते कुम्भपरिग्रहात् ।
स्थापयेत्सर्वबीजनि गोमयाक्तानि रूषिते ॥
प्रेक्ष्य सस्यात्पल्लवानि निविडानि निरवग्रहात् ।
तत्र धेनुवृषभनववत्सांश्चापि निवेशयेत् ॥
पश्चात्पादक्रमैर्वर्गैर्नासाग्राणैः समन्वितम् ।
संधुष्ट (ष्टं) वृषभध्वानै (र) धवले (लीं) भूतलूषितम् ॥
यवप्रस्थसमेतैश्च पततीवत्सक्रमतः ।
गोमयालेपितं पश्चादोष्ठकैश्च निषेवितम् ॥
रोमन्थोदारपुलकैः शोभितं गोष्पदैरपि ।
स्वच्छोदकसमाक्रान्त (न्तं) गोगन्धैश्च मनोहरम् ॥
एवं शुभदिनोपेतं तारकाविषयैरपि ।
सुमुहूर्ते सुकरणे सुलग्ने सुपिहितिस्वितैः (सुविपश्चिद्भिः) ॥
विप्रैश्च पश्चात्पुण्याहे कारयेत्सर्वमङ्गलम् ।
भूतलं (ल) खननं कुर्याद्व (द्वा) स्तुमध्ये लयावधि ॥
चतुरश्रं तूपहितो (तं) हस्तमात्रं तु निम्नकम् ।
ह (वा) रिक्षत्वारि परितः समं संक्षिप्य चोच्छ्रयम् (च्छ्रितम्) ॥
पूजयित्वा (येत्तु) यथाशास्त्रं प्रणम्य रू (पं) पाम्बिकाम् ।
सर्वरत्नजलैश्चैव गन्धपुष्पाक्षतैरपि ॥
पूजयेत्पायसान्नेन प्रभाते तु ततः सुधीः ।
वापीसमीपे नियतं (तः) समाहितमनाः शुचिः ॥
प्रांवीत्वरिक् (चदिक्) शिरस्ये (ए) दर्भास्तरणभूतले ।
महाक्षोणि विवर्धस्व धान्यैश्च साधनैरपि ॥
उत्तमं शुष्कमास्थाय मङ्गलं (ल) भवते (त्यै) नमः ।

मन्त्रमेतज् (तं) जपन्पश्चादुपवासमुपक्रमेत् ॥
प्रभाते तु परीक्ष्येमं (क्षेत) रूपं स्थपतिभिः सुधीः ।
किंचिच्छेषं जलं प्रेक्ष्य गृह्णेतं (ह्यतां) मङ्गलाय वै ॥
शोषितं धनधान्यानां क्षयं क्लिन्ने विनाशितम् ।
परितस्तु मृदा गर्ते पूरिते मध्यमा मही ॥
मही हीनं (ना) मृदा हीना चोत्तमा च (चापि) चाधिका ।
प्रेक्ष्य कर्तुं (कर्ता तु) तन्मध्ये प्रदक्षिणचरोत्तरम् (र उत्तमम्) ॥
कामधेनुसमां चोर्वीं स्वीकुर्यात्तु विभूतये ।
आकारवर्णशब्दादिगुणोपेतं भुवः स्थलम् ।
सङ्गृह्य स्थपतिः प्राज्ञो दत्वा देवबलिं पुनः ॥
स्वस्तिवाचकघोषेण जयशब्दादिमङ्गलैः ।
अपक्रामन्तु भूतानि देवताश्च सराक्षसाः ॥
वासान्तरं व्रजन्त्वस्मात् कुर्यां भूमिपरिग्रहम् ।
इति मन्त्रं समुच्चार्य विहिते भूपरिग्रहे ॥
कृष्ट्वा गोमयमिश्राणि सर्वबीजानि वापयेत् ।
दृष्ट्वा तानि विरूढानि फलपक्वगतानि च ॥
सवृषाश्च सवत्साश्च ततो गास्तत्र वासयेत् ।
यतो गोभिः परिक्रान्तमुपघ्राणैश्च पूजितम् ॥
संहृष्टवृषनादैश्च निर्धौतकलुषीकृतम् ।
वत्सवक्त्रच्युतैः फेनैः संस्कृतं प्रस्नवैरपि ॥
स्नातं गोमूत्रसेकैश्च गोपुरीषैः सलेपनम् ।
च्युतरोमन्थनोद्गारैर्गोष्पदैः कृतकौतुकम् ॥
गोगन्धेन समाविष्टं पुण्यतोयैः शुभं पुनः ।
तथा पुण्यतिथोपेते नक्षत्रविषये शुभे ॥
करणे च सुलग्ने च मुहूर्ते च बुधेप्सिते ।
अक्षतैः श्वेतपुष्पैश्च बलिकर्म विधीयते ॥
ब्राह्मणैश्च यथाशक्त्या वाचयेत् स्वस्तिवाचनम् ।
वस्तुमध्ये ततस्तस्मिन् खानयेद् वसुधातलम् ॥
अरत्निमात्रगम्भीरं चतुरश्रसमन्वितम् ।
दिग्भागस्थमसम्भ्रान्तमसंक्षिप्तसमुच्छ्रयम् ॥
अर्चयित्वा यथान्यायं तं कूपमभिवन्द्य च ।
चन्दनाक्षतमिश्रेण सर्वरत्नोदकेन च ॥
पयसा तु ततः प्राज्ञो निशादौ परिपूरयेत् ।
तस्य कूपस्य चाभ्याशे शुचिर्भूत्वा समाहितः ॥
भूमौ दर्भावकीर्णायां संविशेत् प्राक्शिरा बुधः ।

मय० ४. १–१९॥

अस्मिन् वस्तुनि वर्धस्व धनधान्येन मेदिनि॥
उत्तमं वीर्यमास्थाय नमस्तेऽस्तु शिवा भव।
उपवासमुपक्रामेदेतं मन्त्रं जपंस्ततः॥
दिनादौ परीक्षेत तं कूपं स्थपतिर्बुधः।
सावशेषं जलं दृष्ट्वा तद् ग्राह्यं सर्वसम्पदे॥
क्लिन्ने वास्तुविनाशाय शुष्के धान्यधनक्षयः।
पूरिते तन्मृदा खाते समता मध्यमा मता॥
उत्तमा भूर्मृदाधिक्या हीना हीना मृदा मही।
तन्मध्यावटसन्दृष्टप्रदक्षिणचरोदकाम्॥
सुरभिप्रतिमां भूमिं गृह्णीयात् सर्वसम्पदे।

एवं यथोक्तविधिना विविधं विदित्वा
ग्रामाग्रहारपुरपत्तनखर्वटानि।
स्थानीयखेटनिगमानि तथेतराणि,
यः संविविक्तुरवनीग्रहणं विदध्यात्॥

(स) प्लव-परीक्षा च

टि०—प्लवपरीक्षणं तत्र प्रथमे खण्डे दिङ्निर्णये दत्तमेव।

द्वितीयः पटलः

ग्राम-लक्षणम् ग्राम-विन्यासश्च

वि० वा० ७. ५-८॥

संप्राप्य चोत्तमां वास्तुभूमिं निर्माणकोविदः।
संप्राप्तद्रव्यराशिश्च यतेत पृथुकर्मणि॥

द्वादश ग्रामाः

आद्यस्तु मण्डकग्रामः प्रस्तरस्तदनन्तरम्।
वाहुलीकस्तृतीयस्तु पराकस्तु चतुर्थकः॥
चतुर्मुखः पञ्चमः स्यात् षष्ठः पूर्वमुखस्तथा।
सप्तमो मङ्गलग्रामस्त्वष्टमो विश्वकर्मकः॥
नवमो देवराड्ग्रामो विश्वेशो दशमो मतः।
एकादशस्तु कैलासो द्वादशो नित्यमङ्गलः॥
इत्येवं द्वादश ग्रामाः शिल्पशास्त्रे प्रकीर्तिताः।

८. २०-२७ (खेटादिवास्तु-भूमिर्यथा)

खेटस्य वास्तुभूमिस्तु प्रायः काननमध्यगा।
शबरैश्च पुलिन्दैश्च संयुता मांसजीविभिः॥
पर्णगेहान्विता विध्वगथ वेष्टिकगेहभाक्।
एकादिदशवीथ्यन्ताः क्षुद्रवीथ्यस्समन्ततः॥
वास्तुभूमिः खर्वटस्य नदीतीरगता मता।
रसालसालवकुलैस्तिन्त्रिणीवेणुपाटलैः ॥
कदम्बैर्नारिकेलैश्च श्रीपर्णैस्तिलकैरपि।
छायावृक्षसमाकीर्णा निष्कुटारामसंवृता॥
दशादिविंशद्वीथीभिरावृता च समन्ततः।
शतगेहा मुख्यवीथी तन्मध्ये कालिकागृहम्॥
वागुराजीविभिश्चान्यैर्भृतकैश्च कृषीवलैः।
मदिरागेहसंयुक्ता विपण्यादिभिरावृता॥
वनमध्यङ्गवा वापि गिरिसानुसमीपभाक्।
आरामभूमध्यगता पल्लीभूमिस्तु सौख्यदा।
मधूकैस्तिन्त्रिणीभिश्च रसालैर्नारिकेलकैः।
पनसैश्च शिरीषैश्च संवृता च समन्ततः॥
सङ्कीर्णा वहुभिर्वर्णैर्मेषगोवाजिरक्तकैः।
दशादिविंशद्भिर्भरिता च समन्ततः॥
वापीकूपादिभरिता विपण्या क्षुद्रया युता।

सह जनसङ्कीर्णा पल्लीभूमिरितीरिता ॥
घोषभूमिश्शैवलिनीतीरभाग्वा वनान्तभाक् ।
गिरिसानुगता वापि सर्वकालेषु सौख्यदा ॥
वानीरविल्वकुन्दाद्यैर्मालत्यादिभिरन्विता ।
चूतादि फलवृक्षैश्च सर्वतस्तु समावृता ॥
सस्यभूम्यावृता विष्वक्सुखग्राह्यजलान्विता ।
द्वात्रिंशद्वीथिकोपेता क्षुद्रवीथ्युपवीथियुक् ॥
गोभिर्गोपालकैश्चापि सर्वतस्संवृता शुभा ॥
आभीरिभूश्शैवलिनीतीरभाग्वा वनान्तभाक् ।
सर्वतस्सूक्ष्मसिकता पुष्पगन्धाद्यगन्धिनी ॥
मण्डलाख्यतृणैर्घासैरन्यैश्च बहुभिर्युता ।
नारिकेलरसालादिफलवृक्षैस्समन्विता ॥
सर्वतो हस्ततोयाढ्या भूमिरेवंविधा मता ।
त्रिंशद्वीथियुता क्षुद्रवीथियुक्च समन्ततः ॥
वापीकूपतटाकाद्यैरन्विता सुखदायिनी ।
ग्रामदेव्यालयोपेता वारुण्यां दिशि कालिका ॥
गोपनाथस्य सदनमथवा नृपमन्दिरम् ।
कारयेन्मध्यभागे स्वा निषधादींश्च सर्वतः ॥
गोपालभवनाधिक्यं गवामपि च कीर्तितम् ॥

मान० ६. १-२८॥

(ग्राम-लक्षणम्)

वक्ष्येऽहं ग्रामविन्यासं शास्त्रे संक्षेपतः क्रमात् ।
दण्डकं सर्वतोभद्रं नन्द्यावर्तं तु पञ्चकम् ॥
वक्ष्येऽहं ग्रामविन्यासं शास्त्रे संक्षेपतः क्रमात् ।
एवं चाष्टविधं ग्रामं तत्तद्रूपेण संज्ञितम् ।
प्रथमं ग्राममानं च द्वितीयं पद (दं) विन्यसेत् ।
तृतीयं तद्बलिं दत्वा चतुर्थं ग्राम (मं) विन्यसेत् ॥
पञ्चमं गृह (हं) विन्यस्य तत्र गर्भं विनिक्षिपेत् ।
षष्ठे गृहप्रवेशं च तन्मानमधुनोच्यते ॥
धनुर्ग्रहैश्च यद्दण्डं तद्दण्डेनार्पयेदधः ।
पञ्चविंशतिदण्डाद्यैः (द्यौ) द्विद्विदण्डविवर्धनात् ॥
एकाधिकशतान्तं स्यान्नवत्रिंशद्विशालकम् ।
एवं तु दण्डकं प्रोक्तं तस्यायाममि (म इ)होच्यते ॥
विस्ताराद्विद्विदण्डेन वर्धयेद्विगुणान्तकम् ।
यः (यतः) शुभायादिकसर्थं दण्डहीनाधिकं तु वा ॥
वानप्रस्थमिदं योग्यं क्षुद्रदण्डकमीरितम् ।
एकत्रिंशतिदण्डा (शद्दण्डमा द्ये) द्विद्विदण्डेन वर्धनम् ॥

सप्ताधिकशतान्तं स्यात्सप्तषष्टिविशालकम् ।
दीर्घं प्रागुक्तवत्कुर्यादेतद्दण्डक (कं) मध्यमम् ॥
सप्तत्रिंशतिदण्डादि (शद्दण्डमादौ) द्विद्विदण्डविवर्धनात् ।
त्रयोविंशद्दशाधिक्यशतदण्डावसानकम् ॥
दण्डकं चोत्तमं पञ्चचत्वारिंशद्विशालकम् ।
एतत्तु दण्डकं प्रोक्तं भूसुराणां तु योग्यकम् ॥
पञ्चाशद्दण्डमारभ्य द्विद्विदण्डविवर्धनात् ।
द्विशतं दण्डान्तकं स्यात् षट्सप्ततिविशालकम् ॥
षष्टे तु (षष्ट्यैकं) दण्डमारभ्य द्विद्विदण्डविवर्धनात् ।
सैकार्कत्रि (त्रि) शतं दण्डात् (ण्डं) त्रि (शत) सप्तद (त्रिं) शविस्तृतम् ।
युग्मायुग्मं तु दण्डेन सर्वतोभद्रमेव च ।
भूसुरामरयोग्यं स्यात्तदायामविशालकम् ॥
नन्दावर्त (न्द्यैकत्रि) ग्राम ग्राम (मे) द्विद्विदण्डविवर्धनम् ।
पञ्चषष्ट्याधिकं पञ्चशतदण्डावसानकम् ॥
एव (वं) पञ्च द्विशतं विशालं परिकीर्तितम् ।
विस्तारायामस्तत्तुल्यो (पादोनोऽर्धाधिकस्तथा ॥
(विस्ता) रं द्विद्विदण्डेन वर्धयेद्द्विगुणान्तकम् ।
नन्द्यावर्तमिदं प्रोक्तं वर्तव्यं (वस्तव्यं) देवभूसुरैः ॥
अथातः पञ्चकं ग्रामग्रामलक्षणमुच्यते ।
शतदण्ड (ण्डं) समारभ्य द्विद्विदण्डविवर्धनात् ॥
एकसहस्र-दण्डान्तं (न्तो) विस्तारं तत् समं मतम् (रस्तत्समो मतः) ।
परमाधिकपञ्चाशच्चतुःशतविशालकम् ।
विप्रयोग्यं तथा पञ्चमेवमुक्तं पुरातनैः ।
एतच्चत्वारि ग्रामविस्तारप्रमाणलक्षणम् ॥
अथ स्वस्तिकविन्यास (विस्तार) मानलक्षणमुच्यते ।
एकद्विशतदण्डादौ विंशद्दण्डविवर्धनात् ॥
द्विसहस्रे (स्रै) कदण्डान्तं (न्तो) विस्तारं (रः) परिकीर्तितम् (तः) ।
तस्माद्द्विंशतिदण्डेन वर्धयेत्तत्समाधिकम् ॥
तस्यायाममिदं (मो ह्ययं) प्रोक्तं (क्तः) स्वस्तिकं भूपयोग्यकम् ।
अतः परं प्रस्तरविन्यास (विस्तार) लक्षणमुच्यते ॥
त्रिंशद्दण्डमारभ्य शतदण्डविवर्धनात् ।
सहस्रद्वयदण्डांतं प्रस्तरं विस्तृतं भवेत् ॥
सपञ्चषष्टिदण्डादौ द्विद्विदण्डविवर्धनात् ।
युग्मायुग्मं तथा वापि दण्डं पञ्चशतान्तकम् ॥
एतत् (एष) कार्मुकविस्तारं त (रस्त) स्यायाममि (म इ) होच्यते ।

तस्मात्तु शतदण्डेन वर्धनाद्विगुणान्तकम् ॥
एवं तु वैश्यकानां तु योग्यं तत्कामुकं भवेत् ।
त्रिशद्दण्डं समारस्य त्रित्रि (द्विद्वि) दण्डविवर्धनात् ॥
शतदण्डावसानं (नः) स्याद्विस्तारं (रः) परिकीर्तितम् (तः) ।
तत्तत्रित्रिद्विदण्डेन वर्धयेद्विगुणान्तकम् ॥
एवं चतुर्मुखं प्रोक्तं शूद्राणामेव योग्यकम् ।

तेषु नन्द्यावर्तस्य सविस्तरं लक्षणं यथा ६, ८२-१४७॥

नन्द्यावर्तस्य विन्यासलक्षणं वक्ष्यतेऽधुना ।
पूर्वोक्तदण्डमानेन विस्तारायामकल्पनम् ॥
समविस्तारमायाममायाधिकमथापि वा ।
चण्डिताख्यपदं न्यासं वाऽपि मण्डूकं परिकल्पयेत् ॥
ग्रामे चायतविस्तारौ समे (मौ) चेत्कल्पयेत्सुधीः ।
आयाधिकं यथा ग्रामे नन्दनन्दपदं भवेत् ॥
अथवा स्थण्डिलं न्यस्य (सेत्) समायाममित्यपि वा ।
पदं च चण्डित (तं) तन्मध्ये ब्रह्मणश्च चतुष्पदम् ॥
तद्बहिः परितो भागे दैवकं च (द्वा) दशांशकम् ।
तद्बाह्ये विंशतिपदं परितो मानुषं भवेत् ॥
तद्बहिश्चावृतांशेन पशाचं चाष्टविंशति (तिः) ।
एवं तु चण्डितं प्रोक्तं परमशायिकमुच्यते ॥
मध्ये नवपदं बाह्ये दैवकं षोडशांशकम् ।
तद्बहिर्मानुषं चैव चतुर्विंशपदं भवेत् ॥
पैशाचं बाह्यमावर्तं तत्त्रिंशकं पदम् ।
स्थण्डिलं (ल) पदमध्ये च ब्रह्मणस्यै (ण ए) कमात्रकम् ॥
दैवकं चाष्टभागं स्यान्मानुषं षोडशांशकम् ।
तद्बहिश्च चतुर्विंशत्पदं पैशाचमेव च ॥
एषां पदैर्यथायोग्यं विन्यसेच्छिल्पि (ल्प) वित्तमः ।
तत्पैशाचपदं चोक्तं नन्द्यावर्ताकृतिर्भवेत् ॥
प्राचीरथ्योत्तरा (रमार) स्य स्याद्दक्षिणायत (तं) निर्गमम् ।
दक्षिणावीथीपूर्वादिपश्चिमायतनिर्गमम् ॥
पश्चिमवीथी (थ्याः) दक्षिण्या (णा) दुत्तरायत (तं) निर्गमम् ।
उदग्वीथी (थ्याः) प्रतीच्यादितत्पूर्वायत (तं) निर्गमम् ॥
नन्द्यावर्तावृतावीथी मे (ए) वमूह्यं (ह्या) विचक्षणैः ।
दक्षिणोदग्द्वयोर्वाऽपि प्राक्प्रत्यग्वि (ग्द्वि) तयो र पि (वा) ॥
अन्तर्वीथीनां मूलाग्रौ (ग्रयोः) चैकपक्षं प्रयोजयेत् ।
पार्श्वयोश्च द्विविधं स्याद्धि पक्षमुक्तं पुरातनैः ॥
एवं बाह्यवीथी स्यादन्तर्वीथिरि (थी) त्विहोच्यते ।

आयते दीर्घरथ्या स्याद्विस्तारे दीर्घमेव च ॥
एकत्रिपञ्चसप्तयो (सप्त) वीथी (थ्यः) पूर्वाद्विपक्षयुक् ।
एकद्वित्रिचतुष्पञ्चमार्गं वा परिकल्पयेत् ॥
एवं वहिर्गतं मार्गं तत्र पक्षं न कारयेत् ।
पक्षयुक्ता तु वीथी स्यात्पक्षहीनं तु मार्गकम् ॥
महामार्गं तु सर्वेषां (वासां) वीथीनां कर्करीकृतम् ।
मध्येषां तु (मध्य एषां) यथारज्जुः (ज्जु) क्षुद्रमार्गं प्रयोजयेत् ॥
त्रिचतुः (तुष्) पञ्चदण्डं वा वीथीनां विस्तृतिर्भवेत् ।
षट्सप्ताष्टदण्डं वा नन्दपङ्क्तीशभानुषु (नुं वा) ॥
केचि (काश्चि) द्रथ्या विशालाश्च सर्वेषां तत्समं तु वा ।
महामार्गविशालं (तु) यद्वीथीनन्दसमं तु वा ॥
महारथ्या (मार्ग) समं मध्ये वीथीविस्तारमिष्यते ।
मध्ये (वीथी) समं तु मध्ये च मार्गमेवं विशालकम् ॥
तदष्टांशोनमेवं वा त्रिपादं चार्धमेव वा ।
अन्यासां सर्ववीथीनां यथातत्सममेव वा ॥
तत्समं (सर्वासां) वा त्रिपादं वा महामार्गं (र्ग) विशालकम् ।
तत्त्रिपादार्धं तु विस्तारं क्षुद्रमार्गविशालकम् ॥
एवं विन्यासमुद्दिष्टं भूसुराणां तु योग्यकम् ।
अथाष्टाधिकं पञ्चाशदष्टोत्तरशतं तु वा ॥
त्रिंशतैर् (त्रिशत) वप्रसंख्या (विप्रसंधं) च अ (चाप्य) ष्टोत्तरसहस्रकम् ।
सहस्रत्रयव(वि)प्रं वा सहस्रैश्च चतुष्टयम् ॥
दे (दे) वमनुत (मानुष) पैशाचे भूसुरान् (सुरैः) परिपूर्णकम् ।
एवं मङ्गलमाख्यातं यस्तु वास्तुर् (स्तुं) विनिर्दिशेत् ॥
नृपवैश्यादिजातीनामेवं चेत् पुरमुच्यते ।
वैश्यशूद्रादीनां योग्यमग्रहारं प्रशस्यते ॥
एवं मर्त्यपदेनान्तः भूसुराणां गृहान्वितम् ।
देवमानुषपैशाचे यद्राजगृहमेव च ।
तत्पैशाचपदे वैश्यशूद्रजात्यादिकालयम् ।
पैशाचे च द्विरथ्या वा त्रिचतुष्पञ्चपडेव वा ॥
सप्तकं (काः) वा तथा रथ्या वा यथा विशालं तथा न्यसेत् ।
दक्षिणे प्रथमारथ्ये (मरथ्यायां) वैश्यकानां तु वेश्मानि ॥
वारुणे चक्रवर्ती स्यादेवमालयस्य विधिः ।
अथ मित्रपदे चैव जयन्ते रुद्रजये तथा ॥
एवं राजगृहं प्रोक्तं तत्रैवं (त्र) योधकालयम् ।
नैर्ऋत्ये च पदे देशे श्रीकराणां तु हर्म्यकम् ॥

सामन्तप्रमुखादीनामसुरे सोष्ट (शोष) केऽपि च।
तत्रैवामात्यहर्म्यं स्यात्स्वासिकालयमेव च॥
पुरोहितालयं सुग्रीवे पुष्पदन्तपदेऽपि च।
दौवारिकश्च सुग्रीवे रक्षकारालयं भवेत्॥
गन्धर्वरोगशोषे वा वाद्यकाद्यादेरालयम्।
तत्रैव गणिकादीनां नृत्तयोग्यादिरा (दिका) लयम्॥
वायव्ये वा नरे (नागे) वाऽपि स्थपतीनां तथालयम्।
नागे चाथवा मुख्ये वा नेत्ररत्नकरालयम्॥
उत्तरे शल्यशालाश्च (तत्र) कञ्चयासका (कञ्चुककारा)लयम्(यं वा)।
अदितिश्चादितिश्चैव वैद्यकादितथा (दीनामा) लयम्॥
ईशे वाऽथ जयन्ते वा ग्रामरक्षितकालयम् (च)॥
महेन्द्रे वाऽथ सत्ये वा कर्णिकारालयं भवेत्॥
भृशे वा चान्तरिक्षे वा अ (चा) ह्नयक्रम (कर्म) हर्म्यकम्।
एवं प्रथमावरणे द्वितीयावरणमुच्यते॥
तैलोपजीविनां वासश्रेणितो(त उ)त्तरवीथिके।
तत्रैव नानाहर्म्यं स्यात्कुलालालयमेव च॥
मत्स्योपजीविनां वास (सं) मांसव्यापारिकादीनां च।
पश्चिमे वालयश्रेणिः किरातानां तु दक्षिणे॥
आग्नेये वायवे वापि रजकस्यालयं भवेत्।
दक्षिणे पूर्वदेशे वा नृत्तकारालयं भवेत्॥
उत्तरे वा नैरृते वापि सूति (चि) कारालयं भवेत्।
एवं द्वितीयावरणे तृतीयावरणो(णमु) च्यते॥
दक्षिणे कर्मकारस्य तत्र श्रेण्यालयं भवेत्।
उत्तरे चाग्निदेशे वा पेटिकारालयं भवेत्॥
पश्चिमे पूर्वके वापि शस्त्रकर्मकरालयम्।
उत्तरे चर्मकारस्य तच्छ्रेण्यालयमेव वा॥
अन्यथा (दा) वरणाः (णम्) सर्वसन्यत् कर्मोपजीविनाम्।
एवं नरालयं प्रोक्तं देवानामधुनोच्यते॥
आयादिषु चतुर्दिक्षु ग्रामस्यापि चतुर्दिशि।
एवं यथेष्टदिग्देशे विष्णुधिष्ण्यं प्रकल्पयेत्॥
अथवा वहिरङ्गे तु चेष्टदिग्विष्णु (ष्णो) रालयम्।
इन्द्रादिषु चतुर्दिक्षु विष्णुस्थानं तु राक्षसे॥
पूर्वके श्रीधरं प्रोक्तं दक्षिणे वामनं तथा।
पश्चिमे वासुदेवं वा चादिविष्णुं जनार्दनम्॥
उत्तरे केशवं प्रोक्तं नारायणमथापि वा।

अन्तः प्रागुत्तरे देशे विष्णुमूर्तिर् (र्ति) यथेष्टकम् ॥
पितृदेवेशकोणे वा य (त) था नृसिंहालयं भवेत् ।
अग्निकोणे य (त) था रामं गोपालालयमेव वा ॥
मित्रे च त्रितलं कुर्यात्स्थानकं चादिभूमिके ।
द्वितीयं (ये) चासनं प्रोक्तं तृतीये शयनं भवेत् ॥
अथवा स्थानकं चोर्ध्वे शयनं मूलकस्थले ।
इष्टदिग्विष्णुहर्म्याणां द्वारं कुर्याद्विचक्षणः ॥
ग्रामस्याभिमुखं विष्णुं नरसिंहं पराङ्मुखम् ।
लक्ष्मी नृसिंहश्चैवापि ग्रामस्याभिमुखो भवेत् ॥
रुद्रं रुद्रजये वापि इ (रिव) न्द्रश्चेन्द्रजयेषु च ।
आपवत्स्या (त्सा) पवत्सयश्च साविन्द्र (त्र) श्चा (श्च) सान्द्रके (सवित्रके) ॥
ईशे वाथ जयन्ते वा पर्जन्यस्य पदेपि वा ।
गुवमीशालयं कुर्याद्ग्रामस्य तु पराङ्मुखम् ॥
पूर्वके पश्चिमे वापि तत्रैवाभिमुखं भवेत् ।
अन्यत् सकलरूपाणां हर्म्यद्वारं यथेष्टतः ॥
स्वकर्णे वाऽपि दौवारिके सुब्रह्मण्यालयं भवेत् ।
अथवा जिनालयं स्यात्सुगतालयमेव च ॥
चतुर्दिक्षु विदिक्वा (क्ष्व) वि मध्ये वैनायकालयम् ।
गन्धर्व (र्वे) भृङ्गराजे वा भार्गकारालयं भवेत् ॥
मुख्येवाथ च भल्लाटे सा (स) रस्वत्यालयं भवेत् ।
अदितौ वा मृगे वापि लक्ष्मीभवनकं स्मृतम् ॥
तत्रैव भुवनदेवीहर्म्यमेवं प्रकल्पयेत् ।
यद्वारस्य वहिरङ्गे रक्षार्थं भैरवालयम् ॥
राक्षसे पुष्पदन्ते वा दुर्गायाश्चापि चालयम् ।
तद्ग्रामस्य वहिः सौम्ये कालि (ली) कोष्ठं प्रकल्पयेत् ॥
ग्रामात्क्रोशावसानं स्यात्पूर्वं वा चोत्तरेऽपि वा ।
तत्र चण्डालवासः स्याच्चोत्तरे च श्मशानकम् ।
ग्रामस्य चोत्तरे वाह्ये प्रेतभूतांशदण्डकम् ।
ग्रामस्य परितो वाह्ये रक्षार्थं वप्रसंयुतम् ॥
तद्वहिः परिखायुक्तं परितो वप्रवेदिकैः ।
चतुर्दिक्षु चतुष्कोणे महाद्वारं प्रकल्पयेत् ॥
वृत्तं वा चतुरश्रं वा वास्तुस्वाकृतिवप्रयुक् ।
पूर्वद्वारमथैशाने चाग्निद्वारं तु दक्षिणे ॥
पितुर्द्वारं तु तत्प्रत्यग्वायोर्द्वारं तथोत्तरम् ।
पूर्वपश्चिमयोर्द्वारौ तत् (त्र) सूत्रं तु योजयेत् ॥

दक्षिणोत्तरयोर्द्वारौ तत्र देशे विशेषतः ।
दक्षिणोत्तरकं सूत्रं विन्यसेच्छिल्पवित्तमः ॥
तस्य सूत्रान्ततत्पूर्वे हस्तं तद्वार (रं) मध्यमे ।
पूर्वं दक्षिणतो द्वारं तद्धि वा (द्वा) रौ तथोक्तवत् ॥
उत्तरे द्वार (रं) तत्सूत्रात्प्रत्यग्हस्तावसानकम् ।
चतुर्दिक्षु चतुर्द्वारं युक्तं वा नेष्यते बुधैः ॥
पूर्वे पश्चिमके वाऽपि द्वारमेतत् (मेकं) द्वयोर (यम) पि ।
परितश्चतुरश्राग्रा द्वारं कुर्यात्तु सर्वदा ॥
एतत्सर्वं महाद्वारमुपद्वारमिहोच्यते ।
नागे वाऽदि मृगे वाऽ(प्य) श्रादितिश्चो (तौ चो, दितोऽपि वा ॥
पर्जन्ये वान्तरिक्षे वा पूषे (पूष्णि) वा वितथेऽपि वा ।
गन्धर्वे भृङ्गराजे वा सुग्रीवे वा सुरेऽथवा ॥
तथेष्टमेवमुपद्वारं कुर्यात्तल्लक्षणवित् (र्यादुक्तलक्षमवत्) ।
मुख्यके वाऽथ भल्लाटे मृगे चोदितोऽथवा ॥
जयन्ते वा महेन्द्रे वा सत्यके वाऽथ भृशेऽथवा ।
एवमेवं जलद्वारं कुर्यात्तत्र विचक्षणः ॥
ब्रह्मणे वाऽदग्निदेशे वा सावित्रे वा मण्डपं भवेत् ।
भूधरे चासुरे वाऽपि सभास्थानं प्रकल्पयेत् ॥
नन्द्यावर्तमिति प्रोक्तं तन्त्रविद्भिः पुरातनैः ।

म I०
ग्रामभेदाः
६. ३१—३४

एककुटुम्बिसमेतं कुटिकं स्या (त्त?) देवभोगमिति कथितम् ।
तस्य सुखालयमिष्टं शेषाणां दण्डकादीनि ॥
युग्मायुग्मविभागैर्द्विविधं स्यात् सर्ववस्तुविन्यासम् ।
युग्मे सूत्रपथं स्यादसमे पदमध्यमे च वीथी स्यात् ॥
अन्योन्यसङ्करश्चेदशुभं स्यात् सर्वजन्तूनाम् ।
दण्डकमपरं स्वस्तिकमित ऊर्ध्वं प्रस्तरं चैव ॥
पश्चात् प्रकीर्णकं स्यान्नन्द्यावर्तं परागमथ पद्मम् ।
स्याच्छ्रीप्रतिष्ठितेनैवाष्टविधं ग्राममुद्दिष्टम् ॥

ग्राम-विन्यासश्च
३५—४३

सर्वेषां ग्रामाणां मङ्गलवीथ्यावृता बहिस्त्ववहिः ।
ब्रह्मस्थानं ह्युदितं तस्मिन् देवालयं तु वा पीठम् ॥
एकद्वित्रिचतुर्भिः पञ्चभिरपि कार्मुकैश्च मार्गवतिः ।
प्राक्प्रत्यग्गतमार्गा ऋजुदण्डमहापथाख्यास्ते ॥
मध्यमयुक्ता वीथी ब्रह्माख्या सैव नाभिः स्यात् ।
द्वारसमेता वीथी राजाख्या च द्विपार्श्वतः क्षुद्रा ॥
सर्वाः कुट्टिमकाख्या मङ्गलवीथी तथैव रथमार्गम् ।
तिर्यग्द्वारसमेता नाराचपथा इति ख्याता ॥

उत्तरदिङ्मुखमार्गाः क्षुद्रार्गलवामनाख्यपथाः।
ग्रामावृता मङ्गलवीथिकाख्या पुरावृता या जनवीथिका स्यात्।
तयोस्तु रथ्याभिहिताभिधा स्यात् पुरातनैरन्यतमेष्वथैवम्॥
द्विजकुलपरिपूर्णं वस्तुयन्मङ्गलाख्यं,
नृपवणिगभियुक्तं वस्तुयत्तत्पुरंस्यात्।
तदितरजनवासं ग्राममित्युच्यतेऽस्मिन्,
मठमिति पठितं यत् तापसानां निवासम्॥
प्रागुदगग्रं मार्गं ककनीकृतदण्डवत्तु तन्मध्ये।
द्वारचतुष्टययुक्तं दण्डकमिति भण्यते मुनिभिः।
दण्डवदेका वीथी साप्येवं दण्डकं प्रोक्तम्॥
नवपदयुक्ते ग्रामे परितो मार्गं पदस्य तस्य बहिः।
तस्मात् प्रागुदगग्रात् प्राग्वीथी दक्षिणाग्रामा॥
तस्मात् प्राग्दक्षिणतो दक्षिणवीथी प्रतीचिमुखा।
तस्मादवागपरतः पश्चिमवीथ्यग्रमुत्तरतः॥
अपरोत्तरतस्तस्मादुत्तरवीथ्या मुखं प्राच्याम्।
एतत् स्वस्तिकमुदितं स्वस्त्याकृत्या चतुर्मार्गम्॥
प्राक्प्रत्यग्गतमार्गैस्त्रिभिरुदगग्रैस्त्रिभिश्चतुर्भिरथो ।
पञ्चभिरपि षट्सप्तभिरपि युक्तं प्रस्तरं पद्म च॥
प्रागग्रैस्तु चतुर्भिर्द्वादशशिवपङ्क्ति नन्दवसुमार्गैः।
उदगग्रैरभियुक्तं ह्येतत् प्रोक्तं प्रकीर्णकं पद्म च॥
प्राक्प्रत्यग्गतमार्गैः पञ्चभिरुदगग्रैस्त्रयोदशभिः।
द्विः सप्तभिरथ तिथिभिः षोडशभिः सप्तदशभिरपि मार्गैः॥
युक्तं नन्द्यावर्तं दिक्षु चतुर्द्वारसंयुक्तम्।
नन्द्यावर्ताकृत्या बाह्ये द्वारैरबाह्यतो मार्गैः॥
युक्तानेकैर्युक्तं नन्द्यावर्ताभमिदमुदितम्।
आद्यैरष्टादशभिर्द्वाविंशत्यङ्ककैरुदग्वक्त्रैः ॥
षड्भिः प्राङ्कदमार्गैर्युक्तं ह्य तत् परागमिति कथितम्।
प्राक्प्रत्यग्गतमार्गैः सप्तभिरुदगग्रैस्त्रिवेदशरैः॥
षट्सप्तभिरपि युक्तैर्विंशतिभिः पञ्चधा पद्मम्।
अष्टभिरथपूर्वाग्रैरुदगग्रैः साष्टविंशतिभिः॥
आद्यैर्द्विः षोडशभिर्मार्गगैरन्त्यैर्युतं यत्तु।
तच्छ्रीप्रतिष्ठितं स्यादष्टविधं ग्राममुद्दिष्टम्॥

शिल्प०
ग्रामविन्यासभेदाः
(वीथीःपुरस्कृत्य)

दण्डकः स्वस्तिकश्चैव प्रस्तश्च प्रकीर्णकः।
नन्द्यावर्तः परागश्च पद्मकः श्रीप्रतिष्ठितः॥
ग्रामादीनां तु सामान्यं विन्यासस्त्वष्टधा स्मृतः।

५. ५७–६८॥ तस्मिन्नेकैव वी (थ्या?थी) स्यात् प्राचीना सोऽपि दण्डकः ॥

प्राग्वीथिर्दक्षिणगा दक्षिणवीथिः प्रतीचिमुखा ।
पश्चिमवीथ्युत्तरगा प्रागग्रा चोत्तरा वीथिः ॥
एवं चेत् स्वस्तिकनाम्ना शिल्पशास्त्रेषु कीर्तितः ।
प्राक्प्रत्यगायतास्तिस्रः सौम्यास्तिस्रोऽथ वीथ्यः ॥
रुद्रदिङ्नन्दवसुभिर्मिता वापि प्रकीर्णकैः ।
प्रत्यग्गा वीथयः पञ्च सौम्यान्ताः स्युस्त्रयोदश ॥
शक्वर्यां चातिशक्वर्यामष्ट्यामत्यष्ट्या च सम्मितम् ।
नन्द्यावर्ते तु विन्यासे प्रासादो प्रभवन्ति हि ॥
प्राच्याष्टवीथयो यस्मिन् सौम्या षट्यादिसंख्यया ।
आकृत्यन्तं समा यत्र परागोऽसौ विधीयते ॥
प्राचीना वीथयः सप्त त्रयोविंशादितः क्रमात् ।
आ सप्तविंशतेः सौम्या विन्यासे पद्मके स्मृताः ॥
प्राचीना वीथयोऽष्टौ स्युरष्टाविंशतिकादितः ।
आद्वात्रिंशदुदीच्यः स्युर्विन्यासे श्रीप्रतिष्ठिते ॥
एकद्वित्रिचतुष्पञ्चदण्डैः स्याद् वीथिविस्तृतिः ।
प्रमुत्तराभ्यां वीथिभ्यां कर्करीवन्धमध्यमा ॥
चतुर्द्वारा भावयेयुर्ग्रामस्याद् दण्डकादयः ।
ग्रामपर्यन्तवीथिस्तु ख्याता मङ्गलवीथिका ॥

तृतीयः पटलः

नगर-लक्षणम् नगर निवेशश्च

नगर निवेशे

विं० वा० आद्यस्तु निगमः प्रोक्तस्कन्धावारो द्वितीयकः ।
(अ) निगमादि- द्राणकस्तु तृतीयस्स्याच्चतुर्थः कुब्जको मतः ॥
नृपयोग्य-सप्तनगर- पट्टणं पञ्चमं षष्ठश्शिबिरस्तु प्रकीर्तितः ।
भेदाः ……………………चारस्सप्तमो वाहिनीमुखः ॥
८. ३८-४०॥ निगमादिनगर्यस्तु नृपभोग्या उदीरिताः ।
वनमध्यङ्गतो वापि गिरिसानुगतोऽपि वा ॥
सदातोयातीरभाग्वां रक्षकैरभिसंवृतः ।

(ब)सामान्यविंशति-पञ्चकस्सर्वतोभद्रो भद्रो विश्वेशपूर्वकाः ।
नगरप्रभेदाः कार्मुकः प्रस्तरश्चैव स्वस्तिकश्च चतुर्मुखः ॥
६. १-४ श्रीप्रतिष्ठा च नगरी बलिदेवपुरन्तथा ।
देवमानुषभेदेन द्विविधं नगरं मतम् ॥
वैजयन्तश्च नगरमन्यच्च पुटभेदनम् ।
गिरिवारिगुहाभेदान्नगरं तत्त्रिधा मतम् ॥
मुखाष्टकञ्च नगरं नन्द्यावर्तमथोत्तरम् ।
प्रसिद्धा राजधानी च कीर्तिता नगरोत्तमा ।
लोकानन्दकरास्सर्वे यशस्सम्पद्विवृद्धिदाः ॥

स० सू० नगरं मन्दिरं दुर्गं पुष्पकं साम्परायिकम् ।
नगरोपभेदाः निवासः सदनं सद्म क्षयः क्षितिलयस्तथा ॥
१८. १-७ यत्रास्ते नगरे राजा राजधानीं तु तां विदुः ।
शाखानगरसंज्ञानि ततोऽन्यानि प्रचक्षते ॥
शाखानगरमेवाहुः कर्वटं नगरोपमम् ।
ऊनं कर्वटमेवेह गुणैर्निगम उच्यते ॥
ग्रामः स्यान्निगमादूनो- ग्रामकल्पो गृहस्त्वसौ ।
गोकुलावासमिच्छन्ति गोष्टमल्पं तु गोष्ठकम् ॥
उपस्थानं भवेद् राज्ञां यत्र तत् पत्तनं विदुः ।
वहुस्फीतवणिग्युक्तं तदुक्तं पुटभेदनम् ॥
विधाय कुटिका यत्र पत्रशाखातृणोपलैः ।
पुलिन्दाः कुर्वते वासं पल्ली स्वल्पा तु पल्लिका ॥

नगरं वर्जयित्वान्यत् सर्वं जनपदः स्मृतः।
नगरेण समं कृत्स्नं राष्ट्रं देशोऽथ मण्डलम्॥

राष्ट्र-निवेशे-ग्राम-निवेशपुरस्सर एव नगराणां निवेशः
१०. ७६–८७

नगरस्य विभागोऽयं यथावत् समुदीरितः।
खेटं तदर्धविष्कम्भमाहुर्ग्रामं तदर्धतः॥
योजनेन पुरात् खेटं खेटाद् ग्रामं प्रचक्षते।
गव्यूतिपरिमाणेन ग्रामाद् ग्रामं प्रचक्षते॥
द्विक्रोशाद् विषये सीमा तदर्धेन पुरस्य सा।
खेटके पुरसीमाधग्रामे खेटार्धतः स्मृता॥
त्रिंशद्धनूंषि विष्कम्भः पुरे दिग्वर्त्मसु स्मृतः।
विंशतिः खेटके मार्गा ग्रामे दश च दर्शिताः॥
नव ग्रामसहस्राणि नवति (श्र?ञ्च) प्रचक्षते।
चतुःषष्टिमपि ग्रामान् ज्यायो राष्ट्रं विदुर्बुधाः॥
दशार्धं च सहस्राणि ग्रामाणां त्रिशती तथा।
ग्रामाश्चतुरशीतिश्च मध्यमं राष्ट्रमीरितम्॥
सहस्रमेकं ग्रामाणां तद्वच्च शतपञ्चकम्।
ऊना च ग्रामपञ्चाशत् कनीयो राष्ट्रमुच्यते॥
अप्यर्धसंख्ययैतेषां ज्येष्ठमध्यकनीयसाम्।
विधाय नवधैकैकं विभजेद् विधिवत् सुधीः॥
राष्ट्रेष्वेवं विभक्तेषु यथाभागं विधानवित्।
निवेशयेत् पुराण्येषु सप्त सप्त यथागमम्॥

अ० पृ०
विंशति-पुरप्रभेदाः
७२. १–४

वक्ष्ये पुरस्य चाकारं साम्प्रतं लक्षणं पुनः।
प्रशस्तं दोषरहितं पुरनामानि विंशतिः॥
माहेन्द्रं सर्वतोभद्रं सिंहावलोकवारुणे।
नन्द्यावर्तं च नन्दाख्यं पुष्पकं चैव स्वस्तिकम्॥
पार्श्वदण्डं जयन्तं च श्रीपुरं रिपुमर्दनम्।
स्नाहं दिव्यमुत्तरं च धर्मं कमलशक्रदे॥
महाजयं पौरुषं च साम्प्रतं कथितं बुधैः।
पुराणां विंशतिश्चैव ख्याता भुवनमण्डनम्॥

तेषां विशेषाश्च
५–१७

महेन्द्रं चतुरश्रं च सर्वतोभद्रमायतम्।
सिंहावलोकनं वृत्तं वृत्तायतं च वारुणम्॥
मुक्तकोणं च नन्दाक्षं नन्द्यावर्तं च स्वस्तिकम्।
पुष्पकमष्टदलाख्यं स्वस्तिकं तु चाष्टाश्रकम्॥
यवाकृति जयन्तं च दण्डं स्यादतिदीर्घकम्।
श्रीपुरं चैकमाकारे द्वाभ्यां तु रिपुमर्दनम्॥
शैलकुक्षौ तथा स्नाहं दिव्यकं शैलमस्तके।

नैऋते च सौम्याख्यं सरिद्याम्ये तु धर्मकम् ॥
पौरुषं पुरुषाकारं नद्योश्चैवं महाजयम् ।
पुरं विंशतिसङ्ख्याकं रम्यं सुरनरोरगैः ॥
स्वस्तिशान्तिकरं नित्यं गोब्राह्मणधराभुजाम् ॥
माहेन्द्रं चतुरश्रं च प्रतापकीर्तिवर्धनम् ।
वृद्धिदं सर्वतोभद्रं नित्यं तद्भद्रशान्तिदम् ॥
सिंहावलोकनं रम्यं हरे (तै) रिपुरिषाव (त) धी (वी) ? ।
वारुणे तु प्रजावृद्धिर्नन्दाख्ये नन्दनं चिरम् ॥
नन्द्यावर्तं मङ्गलाख्यं त्रिदशानां च पुष्पकम् ।
स्वस्तिकृत्स्वस्तिकं प्रोक्तं जयन्तं च जयावहम् ।
वृद्धिदं पार्श्वदण्डं च श्रीप्रदं श्रीपुरं तथा ।
रिपुमर्दनं रिप्वन्तं स्नाहं चैवाभयप्रदम् ॥
दिव्यकं देवभवनमुत्तरं चोत्तमोत्तमम् ।
धर्मं धर्मकरं नित्यं कमलं शान्तिदायकम् ॥
इन्द्रराज्योदयं शक्रं पौरुषं भीमविक्रमम् ॥
महाजयं पुरं नाम सर्वदानन्दकारकम् ॥
इत्थमाकृतयो गुणाः कथितास्तव मयाधुना ।
शुभानां सुप्रशस्तानां पुराणां विंशतिस्तथा ॥

मान० नगर-भेदाः १०, १९-२१॥

सर्वेषां नगरादीनां भेदं (दो) लक्षणमुच्यते ।
नगरं राजधानीयं केवलं नगरं तथा ॥
पुरं य नगरी चैव खेट (टं) खर्वटमेव च ।
कुब्जकं पत्तनं चैव शिबिरं वाहिनीमुखम् ॥
स्थानीयं द्रोणकं चैव संविद्धं कोलकं ततः ।
निगमं स्कन्धावारं च दुर्गं चाष्टविधं भवेत् ॥
नगरादीनि (दि) सङ्ग्रामं च प्रोक्तं दुर्गं च सप्तमम् ।

तेषां विशेषाश्च १०, २२-३३

राष्ट्रमध्ये नदीतीरे बहुपुण्यजनावृतम् ॥
मध्ये राजयुतं चैव नगरं कृतमिष्यते ।
तत्रागते नगर्यन्तं यदि विष्णवाजयं भवेत् ॥
राजधानीति तन्नाम विद्वद्भिर्वच्यते सदा ।
चतुर्दिक्षु चतुर्द्वारं गोपुरैश्च समन्वितम् ॥
रक्षागृहैः समाकीर्णं विष्वक्सेनालयान्वितम् ।
वणिग्भिश्च समाकीर्णमापणैश्च समावृतम् ॥
अन्तर्बहिर्जनैः पूर्णा (र्णं) नानादेवालयैरपि ।
केवलं नगरं प्रोक्तं यदेतं (तत्) तन्त्रपारगैः ॥
काननोद्यानसंयुक्तं नानाजनगृहान्वितम् ।

क्रयविक्रयविद्भिश्च वैश्यवेश्यसंमि(संयु)तम् ॥
देवसद्मसमायुक्तं पुरमेतत्प्रकथ्यते ।
अस्यान्ते राजनिलयं नगरीति तमि (दि) ष्यते ॥
नदीपर्वत(व) प्रान्ते (च) शूद्रालयसमन्वितम् ।
महाप्रावृतसंयुक्तं खेटमुक्तं पुरातनैः ॥
परितः पर्वतैर्युक्तं नानाजातिगृहैर्वृतम् ।
सर्वप्रचारसंयुक्तमेतत्खर्वटमीरितम् ॥ ॥
खेटखर्वटयोर्मध्ये सर्वमध्या (र्या) लयान्वितम् ।
वप्राभावस्वते (त्वे तु) तत्तु कुब्जकमुदाहृतम् ॥
अब्धितीरप्रदेशे तु नानाजातिगृहैर्वृतम् ।
वणिग्जातिभिराकीर्णक्रयविक्रयपूरितम् ॥
रत्नैर्द्वीपान्तरैर्नित्यैः (रानीतैः) क्षौमैः कर्पूरकादिभिः ।
एतत्पत्तनमाख्यातं वप्रायतसमन्वितम् ॥

मय० मानादिपरिखादिपुरस्सरनगरप्रभेदाः १०. १-२९॥

नगरादीनां मानं विन्यासं च क्रमादहं वक्ष्ये ।
आद्यं धनुषां त्रिशतं तस्माच्छतदण्डवर्धनादुपरि ॥
साष्टकसप्ततिभेदाश्चाष्टसहस्रान्तकं यावत् ।
नगराणां विपुलं हि प्रोक्तं पूर्वोक्तमानेन ॥
शतदण्डादिदशद्ध्या त्रिःसप्तत्रिशतदण्डान्तम् ।
क्षुद्राणामिदमुदितं नगराणामेव सर्वेषाम् ॥
चातुःसहस्रकान्तं पञ्चशतोनाद्भि पञ्चपञ्चधा मानम् ॥
त्रिशतादिचतुःशतकं यावद् वृद्ध्या तु विंशतिभिः ।
षड्भिरर्धमुक्तं खेटं श्रेष्ठे मध्ये परे विपुलम् ॥
तस्मात् त्रिरष्टवृद्ध्या द्रोणमुखे पञ्चधा मानम् ।
(स?) षण्णवतिचतुः शतकं यावत् तावत्तु विस्तारम् ॥
द्विशतादि चतुःशतकं यावत् पञ्चाशदभिवृद्ध्या ।
पञ्चप्रमाणमेवं खर्वटविस्तार उद्दिष्टः ॥
द्विशतादिपङ्क्ति वृद्ध्या चत्वारिंशत्रिशतदण्डं स्यात् ।
यावन्निगमे विपुलाः प्रोक्तास्त्रिः पञ्चभेदाश्च ॥
शतदण्डे शतवृद्ध्या पञ्चशतं यावदुद्दिष्टम् ।
स्यात् कोत्मकोलकानां विपुलं पञ्चैव भेदेन ॥
तावन्मानं प्रोक्तं पुरविपुले सूरिभिः प्राज्ञैः ।
यावत् पञ्चशतान्तं द्विशतादारभ्य सप्तधा मानम् ॥
पञ्चाशद्धनुवृद्ध्या विपुलं कथितं विडम्बस्य ।
प्रागुपदिष्टं मानं ह्येतन्मानं तु वैतेषाम् ॥
द्विगुणं त्रिपादमर्धं पादं तेषां मुखायतं विपुलात् ।

विपुले तु षडष्टांशे भागेनैकेन वायतं पुरतः ॥
चतुरश्रमायताश्रं वृत्तं वृत्तायतं च पुनः ।
स्याद् गोलवृत्तमेषां वप्राकारास्तु पञ्चैव ॥
षडष्टसप्तपञ्चकचतुरंशैस्तत्कृते विपुले ।
मुनिरसशरयुगशिखिभिर्भागैर्वप्रावधिः प्रोक्तः ॥
द्वित्रिचतुर्हस्तं स्याद् विपुलं सालस्य तुङ्गे तु ।
सप्तदशैकादशभिर्हस्तैरग्रं त्र्यंशोनम् ॥
परितः परिखा बाह्ये बाह्ये देवालयादीनि ।
पेचकभागाद्यासनभागान्तं चण्डितं प्रोक्तम् ।
सूत्रादीन्यश्रविषमस्थानानि च वर्जयेन्मतिमान् ।
प्रागुदगग्रं मार्गं तत्र यथेष्टं न्यसेद् विधिना ॥
दण्डादिसप्तदण्डं यावद् दण्डार्धवृद्ध्या तु ।
मार्गविशालाश्चैते त्रयोदशभेदाः समुद्दिष्टाः ॥
राष्ट्रस्य मध्यभागे सज्जनबहुले नदीसमीपे च ।
नगरं केवलमथवा राजगृहोपेतराजधानी वा ॥
दिक्षु चतुर्द्वारयुतं गोपुरयुक्तं तु सालाढ्यम् ।
क्रयविक्रयकैर्युक्तं सर्वजनावाससङ्कीर्णम् ॥
सर्वसुरालयसहितं नगरमिदं केवलं प्रोक्तम् ।
प्रत्यगुदग्दिशि गहना परितः साला बहिः सपांसुचया ॥
परितः परिखा बाह्ये शिबिरयुतानेकमुखरक्षा ।
पूर्वायां दक्षिणतश्चाभिमुखा राजबलयुक्ता ।
उन्नतगोपुरयुक्ता नानाविधमालिकोपेता ।
सर्वसुरालयसहिता नानागणिकान्विता बहूद्याना ॥
हस्त्यश्वरथपदातिबहुमुख्या सर्वजनयुक्ता ।
द्वारोपद्वारयुताभ्यन्तरतोऽनेकजनवासा ॥
या नृपवेश्मसमेता सा कथिता राजधानीति ।
काननवनदेशे वा सर्वजनावाससङ्कीर्णम् ॥
क्रयविक्रयकैर्युक्तं पुरमुदितं यत् तदेव नगरमिति ।
शूद्रैरधिष्ठित यन्नद्यचलावेष्टितं तु तत् खेटम् ॥
परितः पर्वतयुक्तं खर्वटकं सर्वजनसहितम् ।
खर्वटखेटकमध्ये यज्जनताढ्यं जनस्थानकुब्जम् ॥
द्वीपान्तरागतवस्तुभिरभियुक्तं सर्वजनसहितम् ।
क्रयविक्रयकैर्युक्तं रत्नधनक्षौमगन्धवस्त्वाढ्यम् ॥
सागरवेलाभ्याशे तदनुगतायामि पत्तनं प्रोक्तम् ।
परनृपदेशसमीपे युद्धारम्भक्रियोपेतम् ॥

सेनासेनापतियुतमिदमुदितं शिबिरमिति च वरैः ।
सर्वजनैः सङ्कीर्णं नृपभवनयुतं तदेव तथा ॥
बहुरक्षोपेतं यत् सेनामुखमुच्यते तज्ज्ञैः ।
नद्यद्रिपार्श्वयुक्तं नृपभवनयुतं सबहुरक्षम् ॥
यन्नृपतिस्थापितकं तत् स्थानीयं समुद्दिष्टम् ।
नद्यब्धिदक्षिणभाग् वणिगादिसंयुक्तम् ॥
सर्वजनावासं यद् द्रोणमुखं प्रोक्तमाचार्यैः ।
ग्रामसमीपे जनतालयमिदमुदितं विडम्बमिति ॥
वनमध्ये जनवासं यत् कोत्तकोलकं प्रोक्तम् ।
चातुर्वर्ण्यसमेतं सर्वजनावाससङ्कीर्णम् ॥
बहुकर्मकारयुक्तं यन्निगमं तत् समुद्दिष्टम् ।
नद्यद्रिवनसमेतं बहुजनयुक्तं सनृपवासम् ॥
एतत् स्कन्धावारं तत्पार्श्वे चेरिका प्रोक्ता ।

नगर-निवेशे मार्ग-विन्यासभेदाः

वि०वा०

६.४३॥–४४	मुखद्वारान्निर्गता या राजवीथीति कथ्यते ।
पञ्चप्रतोलीपुरस्सर-	शतद्वयं प्रतोलीनां सङ्ख्या चात्र प्रकीर्तिता ।
राजवीथ्यादिवीथयः	वीथीनां क्षुद्रवीथीनां सङ्ख्यानेका समन्ततः ॥
सर्वतोभद्रे यथा	नात्रोपवीथीरिशिल्पज्ञः क्षुद्रवीथीश्च कल्पयेत् ।
६. ५०॥–५१॥	समसूत्रा राजवीथीः कल्पयेत्ताश्च सर्वतः ॥
	प्रतोलीनां पञ्चशतं संख्या चात्र निगद्यते ।
प्रस्तरे यथा	सर्वा वीथ्यो द्विपक्षास्स्युरेकपक्षा बहिः स्थिताः ।
६. ६६–६६॥	शतसंख्यां प्रतोलीनामन्यवीथीश्च कल्पयेत् ॥
	वल्लीभिः पण्डवीथीभिर्न्यायशालादिकैर्वृतम् ।
चतुर्मुखे यथा	प्रतोलीनां शतैर्युक्तमुपवीथीशतेन च ।
६. ८२	वल्लीभिः क्षुद्रवीथीभिस्संयुतं च समन्ततः ॥
इति दिक्	
स० सू०	चतुरश्रीकृते क्षेत्रे प्रागुदीच्यन्तभागतः ।
१०. ९–१४॥	चतुर्भागान्तरा वंशाः कार्यास्तस्य त्रयस्त्रयः ॥
(सप्तदश मार्गाः	वंशषट्कविभक्तेऽस्मिन् पदषोडशकान्विते ।
तेषां संज्ञा	राजमार्गः शुभः कार्यो मध्यमं वंशमाश्रितः ॥
विन्यासाश्च)	कार्यो ज्यायसि(च)ज्यायांश्चतुर्विंशतिकः करैः ।
	विंशत्या मध्यमे मध्योऽधमे षोडशकोऽधमः ॥
	बलस्य चतुरङ्गस्य पौराणां पार्थिवस्य च ।
	असम्बाधसमश्चैष कार्योऽयं कारमशर्करः ॥

महारथ्याद्वयं कार्यं तदुपान्तस्थवंशयोः।
तद् द्वादश दशाष्टौ स्यात् करान् ज्येष्ठादिकं त्रिषु॥
पदमध्यगतं कार्यं यानमार्गचतुष्टयम्।
ज्येष्ठादिषु पुरेष्वेवं तत्पद्यं च चतुःकरम्॥
उपरथ्या महामार्गस्यार्धं वा द्विशताधिकम्।
शेषा रथ्यास्तदर्धेन विधातव्याः प्रमाणतः॥
यानमार्गचतुष्कस्य कार्यौ पार्श्वद्वयाश्रितौ।
पदाष्टकपदान्तस्थौ द्वौ द्वौ जङ्घापथावपि॥
पुरे ज्येष्ठे त्रिहस्तौ तौ मध्यमेऽर्धकरोज्झितौ।
मध्यमादर्धहस्तेन हीनौ स्यातां कनीयसि॥
पुरस्यान्तर्गतौ कार्यौ घण्टामार्गौ तथापरौ।
राजमार्गगुणोपेतौ प्रमाणेन च तद्विधौ॥
प्राक्प्रत्यगायताः सप्तदश मार्गा इतीरिताः।

मय०
नगर-विधाने मार्ग-संख्या
१०. ४२-४३॥

प्राक्प्रत्यग्गतमार्गा द्वादश दश वाष्ट षट्चतुर्युगलम्।
तावदुदीचीनास्ते तत्रैवायुग्मसङ्ख्या वा॥
एकादशनवसप्तकपञ्चगुणा वैकमार्गा वा।
युग्मायुग्मपदेषु ह्येकत्रिभिरंशकैरजांशाः स्युः॥

मार्गभेदन पुरभेदाः
१०. ४४-७६॥

नगरादीनामेवं मार्गाण्युदितानि सर्वेषाम्।
दण्डवदेका वीथी तद्दण्डकमित्यभीष्टं स्यात्॥
उत्तरदिङ्मुखमेकं तन्मध्ये संप्रयुक्तं चेत्।
कर्तरिदण्डकमुदितं प्राचीनौ कुट्टिमौ तर्हि॥
तद्बाहुदण्डकं स्याद् दिक्षु चतुर्द्वारसंयुक्तम्।
बहुकुट्टिमसंयुक्तं मध्ये वीथ्या द्विपार्श्वे तु॥
शेषं पूर्ववदिष्टं कुटिकामुखदण्डकं प्रोक्तम्।
प्राचीनोदीचीनैर्मार्गैस्त्रिभिरेव संयुक्तम्॥
तत् कलकाबन्धदण्डमिति तज्ज्ञैः समुद्दिष्टम्।
प्राङ्मुखवीथ्यस्तिस्रश्चोत्तरमार्गास्त्रयश्चैव॥
एकैकान्तरितास्ते कुट्टिममार्गास्त्वनेकाश्च।
वेदीभद्रकमुदितं नगरादीनामिदं शस्तम्॥
स्वस्तिकमुदितं ग्रामे यथा तथा स्वस्तिकं विद्यात्।
प्रागुत्तरमुखमार्गाः षट्षडभीष्टास्तु तद्बाह्ये॥
प्रागिव मार्गोपेतं वीथिपदं स्वस्तिकं चैव।
प्राचीनोदीचीनाश्चत्वारश्चैव मार्गाः स्युः॥
ब्रह्मावृतपथमेकं कुट्टिममार्गास्त्रयः प्राच्याम्।
एतद् भद्रकमुदितं नाम्ना नगरादिविन्यासम्॥

प्राङ्मुखमार्गाश्चैवोत्तरमार्गास्तथैव स्युः ।
बहुकुट्टिमसंयुक्तं भद्रमुखं नाम वस्तु स्यात् ॥
प्राचीनास्तुपड्वैवोत्तरवक्त्रास्तथा मार्गाः ।
यद् बहुकुट्टिमयुक्तं तद्वस्तु भद्रकल्याणम् ॥
पूर्वापरमुखमार्गाः सप्तैवोदङ्मुखाश्च तथा ।
शेषं प्रागिव सर्वं विन्यासं तन्महाभद्रम् ॥
अष्टौ पूर्वमुखास्ते मार्गाश्चाष्टावुदग्वक्त्राः ।
द्वादशमार्गोपेतं बह्वर्गलकुट्टिमैर्युक्तम् ॥
यद् तद् वस्तुसुभद्रं नाम्ना विन्यासमुद्दिष्टम् ।
नवनवमार्गाश्चैते प्राचीनाश्चाप्युदीचीनाः ॥
द्वारोपद्वारयुतं कुट्टिममार्गार्गलैर्युक्तम् ।
राजगृहोपेतं यन्नगरं नाम्ना जयाङ्कः स्यात् ॥
प्राचीना दश मार्गाश्चोत्तरमार्गास्तथैव स्युः ।
नृपमन्दिरसंयुक्तं युक्त्यानेकार्गलोपेतम् ॥
बहुकुट्टिमसंयुक्तं विजयं नाम्ना वरैः प्रोक्तम् ।
प्राचीनास्त्वेकादश मार्गा रुद्रा उदीचीनाः ॥
ब्रह्मांशादपरांशो यदभीष्टं तत्र नृपवासम् ।
तन्मुखतोदङ्महाङ्गणकं स्यादिष्टभागे तु ॥
तत्रान्तः पुरवासं शेषं सर्वं समुन्नेयम् ।
तत्प्रागुन्नतमार्गा सा कथिता राजवीथीति ॥
तस्या द्विपार्श्वयोः स्यात् सैश्वर्याणां मालिकापङ्क्तिः ।
तत्पार्श्वयोर्निवासो वणिजां स्यात् तस्य दक्षिणतः ॥
स्यात् तन्तुवायवासं ह्युत्तरतश्चक्रिणां वासम् ।
तत्तज्जात्यन्तरगृहमथ तत्सामीप्यतः कुर्यात् ॥
शेषं प्रागिव सर्वं योग्यं तत् सर्वतोभद्रम् ।
एवं षोडश भेदा ह्युदिताश्चाद्यैर्मुनीन्द्रैस्तु ॥
मार्गच्छेदं नेष्टं पदमध्ये चत्वरं न स्यात् ।
शेषं युक्त्यानुक्तं सम्यग् योज्यं नृपेच्छया तज्ज्ञैः ॥
क्षुद्राणामपि चैषां मध्यानां चापि सर्वेषाम् ।

मार्गचतुष्पथाः मार्गेषु जलभ्रमाश्च

टि०—समराङ्गणादिवास्तु-शास्त्रेषु शुक्रनीतिसारादिसमाज-शास्त्रेषु च सुनिर्दिष्टाः सन्त्ये
यथावसरं ग्रन्थग्रन्थिताइति नात्रोपश्लोकिताः ।

पुर-निवेशे (नगर-निवेशे ग्राम-निवेशे वा) जातिवर्णाधिवासः—

वि० वा०	
मण्डके ७. ११	विप्रैरधिकसंख्याकैर्मण्डकग्राम ईरितः ॥
प्रस्तरे ७. १५	विप्रैरधिकसंख्याकैस्स युक्तः प्रस्तरो मतः ॥
बाहुलिके ७. १८	नानाजातिभिराकीर्णो ग्रामपालालयान्वितः ।
	सस्यभूमिसमायुक्तो ग्रामो बाहुलिकः स्मृतः ॥
पराके ७. १६	सहस्रजनता यत्र विप्रहीना च भण्यते ।
पूर्वमुखे ७. २५	प्राच्यां मुखद्वारयुतः परिखावृतवास्तुकः ।
	वैश्यसंख्याधिक्ययुतः पण्यवीथीभिराकुलः ॥
विश्वकर्मणि ७.३६-४०	षट्सहस्रावधिजनैरावृतञ्च समन्ततः ।
	नरपालालयोपेतं न्यायविस्तनयायुतम् ॥
	ग्रामकार्यकरैस्सर्वैरन्वितञ्च वणिग्गणैः ।
	पण्यवीथीभिराकीर्णं धनिकैश्च समन्वितम् ।
	वास्तुचिह्नमिदं नाम्ना विश्वकर्मेति चोदितम् ॥
नगरेषु-	भूधरे रुचके भागे भृङ्गे मीने च सोमके ॥
सर्वतोभद्रे यथा	आपोविवस्वद्भागेषु सावित्रेषु यथाक्रमम् ।
६, ५२-५३	ब्राह्मणक्षत्रसद्मानि स्थापयेच्छिल्पकार्यवित् ॥
स० सू०	विभागश्च प्रमाणं च लक्षणं चादिमस्य यत् ।
१०, ८८-१०१	जातिवर्णाधिवासश्च यथावत् तदिहोच्यते ॥
	सुवर्णकारानाग्नेय्यां तथा वह्न्युपजीविनः ।
	निवेशयेत् कर्मकरानन्यानपि विधानवित् ॥
	वैश्यानामक्षधूर्तानां चक्रिकाणां च दक्षिणे ।
	नटानां नर्त्तकानां च गृहाणि विनिवेशयेत् ॥
	निवेशयेत् सौकरिकान् मे (पी?षी) कारान् मृगच्छिदः ।
	कैवर्तान् नैर्ऋताशायां दमनाधिकृतांस्तथा ॥
	रथेषु कौशलं येषां येषां स्यादायुधेषु च ।
	वारुण्यां दिशि तान् सर्वान् पुरस्य विनिवेशयेत् ॥
	कर्मस्वधिकृता ये च ये चापि परिकर्मिणः ।
	शौण्डिका ये च तान् सर्वान् वायोर्दिशि निवेशयेत् ॥
	यतीनामाश्रयान् ब्रह्मवरसानां तथा सभाम् ।
	प्रपाश्च पुण्यशालाश्च कुर्याद् दिशि धनेशितुः ॥
	घृतविक्रयिणो ये च फलविक्रयिणश्च ये ।
	निवेशिताः प्रशस्यन्ते पुरस्यैशानदिग्गताः ॥
	पूर्वभागे बलाध्यक्षान् राज्ञो मुख्यांस्तथा बले ।

निवेशयेत् तथाग्नेय्यां बलं नानाविधं सुधीः ॥
श्रेष्ठिनो दक्षिणशालायां तथा देशमहत्तरान् ।
याम्येकहारान् (अ) कुर्वीत तथा ककुभि नैर्ऋते ॥
कोशपालमहामात्रादेशिकान् कारुकानपि ।
नियामकांश्च कुर्वीत सलिलाधिपतेर्दिशि ॥
वायोः ककुभि कुर्वीत दण्डनाथान् सनायकान् ।
पुरोहितज्योतिषिकानुत्तरस्यां निवेशयेत् ॥
विप्राः सौम्या दिशो भागे क्षत्रियाः शक्रदिग्गता ।
वैश्यशूद्रास्तु कर्तव्या दक्षिणापरयोः क्रमात् ॥
निवेश्या वणिजो वैद्या मुख्याश्चापि चतुर्दिशम् ।
चतुर्दिशं विशेषेण स्थापयीत बलानि च ॥
नगरस्य बहिः प्राच्यां लिङ्गस्थान् विनिवेशयेत् ।
श्मशानानि तथा तत्स्थान् याम्यायां स्थपतिः सुधीः ॥

अ० पु०
७२. ४१-४८
(ब्राह्मणाद्यधिवासः)

ब्राह्मणः पूर्ववास्तव्याः क्षत्रियाश्चैव दक्षिणे ।
प्रशस्ताश्चोत्तरे शूद्रा वैश्या मध्ये च सङ्कुलाः ॥
पुरे पुरे च विप्राश्च क्षत्रिया वैश्यशूद्रकाः ।
तद् बाह्यतस्तथा चान्यास्तथा स्थपतिसङ्कुलाः ॥
विप्रक्षत्रियवैश्यानां प्राकारा वै निवासिनाम् ।
वणिक्कर्मकराणां च मध्यानां च सुखावहाः ॥
विदिक्षु दिक्षु पै कार्या नगरस्वस्तये यथा ।
अष्टभिरष्टद्वात्रिंशद्धमा मध्यमोत्तमाः ॥
चतुर्वर्णांश्च प्रकृतीरेकैकेषु पुरेषु च ।
सर्वत्र वासयेच्चैव नागरांश्च सुखावहान् ॥
पूर्वे ब्राह्मणलोकाश्च क्षत्रियाश्चैव दक्षिणे ।
निवेश्याश्चोत्तरे शूद्राः पश्चिमे तु जलाश्रयाः ॥
पूर्वयाम्योत्तरे शस्तं हट्टमार्गादिचत्वरम् ।
ईशाने शिल्पिनः सर्वे रजकाश्छिपकाः परम् ॥
चर्मकाराश्च वरुटा आग्नेय्यां दिशमाश्रिताः ।
नैर्ऋत्ये शौण्डिका ज्ञेया वायव्ये तन्तुवायकाः ॥

७२. ३२-४०
(क्रयविक्रययुतौक-विन्यासः)

क्रय्यवस्तुयुतौकश्च तदग्रे विक्रयादिकम् ।
यतश्चागम्यते लोकैर्वर्तते जनसङ्कुलम् ॥
स्वर्णकारं सुगन्धं च गन्धिकं च तृतीयकम् ।
दन्तकर्म धान्यगृहमेतत्कुर्यात्तु पूर्वतः ॥
ताम्बूलफलसङ्कीर्णं पुष्पमालादिसङ्कुलम् ।
राजद्वाराग्रतश्चैव यतः स्याच्च जनाकुलम् ॥

मञ्जिष्ठरङ्गशोभाढ्यं नारिकेलसमाकुलम् ।
त्रिगणोपस्कराद्यं च राजद्वारोत्तरे शुभाः ॥
आयसोपस्करं सर्वं शस्त्रादि विविधं तथा ।
व्यजनच्छत्रमायूरं शाश्वतं दक्षिणे शुभम् ॥
ईशाने च वस्त्रहर्यं पट्टिनेत्रपट्टाद्यकम् ।
स्वल्पवस्त्राद्याग्न्येय्यां च वस्त्रबन्धस्तदग्रतः ॥
रक्तकाद्युत्तरे शस्तं कृष्णरङ्गादि दक्षिणे ।
पूर्वतः श्वेतवस्त्राद्यं राजवेश्माग्रकल्पितम् ॥
अष्टादशानां धान्यानां सर्वदिक्षु च विक्रयः ।
ताम्बूलानां च पूगानां विक्रयो देवताग्रतः ॥
(तां) दलाक्षं? चित्रलेखाद्या गृहेषु पुरवासिनाम् ।
छिंपिका रजकास्त्रैणाः स्वदेवादिपुरे स्थिताः ॥

मय०
(अन्तरापणिकं यथा)
१०, ७६॥–६१॥

तत्र कुटुम्बावलिकं वक्ष्येऽहं चान्तरापणकम् ॥
परितो रथपथयुक्तं मध्ये वणिजां गृहश्रेणी ॥
तद्दक्षिणतः पार्श्वे गेहं स्यात् तन्तुवायानाम् ॥
उत्तरतस्तद्वासावलिकं स्याच्चक्रिकाणां तु ।
कर्मोपजीवेनां स्याद् वासं रथपथ्यनेकानाम् ॥
ब्रह्मावृतपथमेकं तत्रान्तरापणं कार्यम् ।
ताम्बूलादि फलं च प्रोक्तं सारान्वितं द्रव्यम् ॥
ईशानादिमहेन्द्रद्वारान्तं चान्तरापणकम् ।
तत्रैव मत्स्यमांसं शुष्कं शाकं च विज्ञेयम् ॥
महेन्द्राद्यग्न्यन्तं भक्ष्यं भोज्यं च निर्दिष्टम् ॥
अग्न्यादिक्षतगृहपर्यन्तं तत्र भाण्डानि ॥
तस्मान्निर्ऋतिपदान्तं कंसादिकमत्र विज्ञेयम् ।
स्यात् पुष्पदन्तभागान्तं पितृभागादि वस्त्रं स्यात् ॥
तस्मात् समीरणान्तं तण्डुलधान्यादिकं च कटम् ।
स्याद् भल्लाटपदान्तं वाय्वादिकं वल्कादीनाम्(?) ॥
तत्रैव लवणादिद्रव्यं तैलादिकं ज्ञेयम् ।
तस्मादीशपदान्तं गन्धं पुष्पादिकं विहितम् ॥
एवं नवान्तरापणमुदितं तत्परितस्तु मध्ये ।
अभ्यन्तरगतमार्गेष्वथ रत्नं हाटकं वस्त्रम् ॥
माञ्जिष्ठं तु मरीचं पिप्पलकं चापि हारिद्रम् ॥
मधुघृततैलादिकमथ भैषज्यं सर्वतः कार्यम् ॥
आर्यपदे च विवस्वति मित्रे पृथिवीधरे च पदे ।
शास्ता दुर्गा गजमुखलक्ष्म्यौ चात्रैव विज्ञेयाः ॥

देवालयमथ परितो ग्रामे यथा तथा विहितम् ।
परितः सर्वजनालयमुदितं किञ्चित् ततो दूरे ॥
नगराद् द्विशतं दण्डं नीत्वा प्राच्यां तु वाग्नेय्याम् ।
चण्डालकुटीराणि तत्रैव तु कौलिकानां तु ॥
अस्मिन् सर्वमनुक्तं ग्रामे तु यथा तथा विहितम् ।
पत्तनमृजुवीथियुतं नैव स्यादन्तरापणं तत्र ॥
शेषाणामपि तत्तद्योग्यवशात् तत्र विज्ञेयम् ॥

पुरनिवेशे देवतायतनानि आरामोद्यानादीनि च—

(अ) देवागाराणि:—

वि० वा० श्रीप्रतिष्ठिते यथा ६ ६४–६५

मध्येलक्ष्म्यादिदेवीनां मन्दिरं कारयेद्बुधः ।
तटाकमण्टपारामप्राकारमुखगोपुरैः ॥
संयुक्तं शुभदं प्रोक्तं प्राङ्मुखं सर्वजीविनाम् ।
तन्मन्दिरं तु परितो विप्रवीथीः प्रकल्पयेत् ॥

स० सू० १०. ११०–१४१

निवेशनानि कुर्वीत त्रिदशानां यथाक्रमम् ।
नगराभिमुखं चित्रवनभाञ्जि शुभानि च ॥
याम्योत्तरायतं वंशं विकल्पपुरमध्यगम् ।
वहिरन्तश्च कुर्वीत देवानां विनिवेशनम् ॥
प्राच्यां प्रत्यङ्मुखान् कुर्यात् प्राङ्मुखांश्चाम्बुभृद्दिशि ।
याम्योदक्पार्श्वयोस्तस्य प्रादक्षिण्येन वंशगान् ॥
दक्षिणस्यां न कुर्वीत त्रिदशानप्युदङ्मुखान् ।
चैत्यशान्तिसभा यक्षमातृप्रथमयान्विताः (?) ॥
इत्यमी कथिताः सम्यग् ये यथादिङ्मुखाः सुराः ।
दिक्षु दिक्षु बहिर्ये स्युस्तानिदानीं प्रचक्ष्महे ॥
विष्णोर्दिनाधिनाथस्य सहस्रनयनस्य च ।
धर्मस्य च विधातव्यं दिशि प्राच्यां निकेतनम् ॥
सनत्कुमारसावित्र्योर्मरुतां मारुतस्य च ।
पूर्वदक्षिणदिग्भागे विदधीत निकेतनम् ॥
गणेशमातृभूतानां याम्ये प्रेतपतेर्गृहम् ।
भद्रकाल्याः पितॄणां स्याद् वेश्म चैत्यं च नैर्ऋते ॥
सागरस्य नदीनां च शिल्पिभर्तुः प्रजापतेः ।
निलयं पश्चिमाशायां विदध्याद् वरुणस्य च ॥
फणिनां भवनं कार्यमपरोत्तरदिग्गतम् ।
शनैश्चरस्य चात्रैव कात्यायन्याश्च मन्दिरम् ॥

विशाखस्कन्दसोमानां तथा यक्षाधिपस्य च।
पृथक्पृथग् विधातव्याः प्रासादाः सौम्यदिग्गताः॥
जगद्गुरोर्महेशस्य श्रियो वह्नेश्च मन्दिरम्।
पूर्वोत्तरस्यां ककुभि प्रविवेयं मनोरमम्॥
नदीनामम्बुधीनां च समस्तान्नगरस्य च।
कान्तारेष्वद्रिषु स्थानं सर्वत्रेष्टमुमापतेः॥
निवेश्यन्ते स्वदिग्भागेष्वेवं यस्मिन् सुरोत्तमाः।
सम्यक्तन्तु क्ष्मामासाद्य चिरं नन्दति तत्पुरम्॥
नगरस्य विदूरेऽपि ककुप्सु निखिलास्वपि।
बाह्यतोऽभिमुखा देवाः शस्यन्ते न पराङ्मुखाः॥
क्रियते यदि भूभागे वंशेन स पराङ्मुखः।
विधिमेनं तदा तस्मिंस्तज्ज्ञः शास्त्रोक्तमाचरेत्॥
तद्वेषवर्णभूषास्त्रवाहनैरन्वितं सुरम्।
तद्भित्तौ प्रकटाकारं नगराभिमुखं लिखेत्॥
वैकङ्कतशमीविल्वैः क्षीरकण्टकिभिर्द्रुमैः।
उदपानान्यगारेषु स्यान्न दोषोऽन्तरस्थितैः॥
अर्चाश्रितेष्वयं प्रोक्तो विधिर्नालेख्यवर्तिषु।
कर्तव्याः सर्वतोवक्त्रास्तस्माच्चित्रगताः सुराः॥
विधानं यद् यथा प्रोक्तं सुरधाम्नां पुराद् बहिः।
तद् तथाभ्यन्तरेऽपि स्यात्कार्यं स्वस्वदिगाश्रयम्॥
मध्ये पुरस्य कर्तव्यं गृहमम्भोजजन्मनः।
निवेशनं तथेन्द्रस्य तथैव हलिकृष्णयोः॥
मातृयक्षगणाधीशान् शिवकान् भूतसङ्घकान्।
विनापि वेश्मभिः कुर्याद् पुरे चत्वरमार्गगान्॥
राज्ञा वर्णाश्रमकलापण्यशिल्पोपजीविनः।
स्वदिक्पदस्थाः कर्तव्यास्ते देवाश्चेच्छता श्रियम्॥
प्रासादे सति भक्तिश्रद्धाशक्तियुक्तो यदापरम्।
प्रासादं कारयेत् पूर्वं न तदा पीडयेत् सुधीः॥
प्रतिवेश्म प्रतिग्रामं प्रतिदेवकुलं तथा।
कुर्याद् प्रतिपुरं चापि न प्राङ्मानगुणाधिकम्॥
पूर्वप्रासादतो रुद्रसोमयोर्ब्रह्मणोऽथवा।
प्रासादे विहितेऽभ्यस्मिन् भवेद् पीडाग्रजन्मनाम्॥
कृते धाम्न्यधिकेऽन्यस्मिन् वह्नेर्वाचस्पतेरथ।
पुरोधसां भयं विद्याद् ध्रुवं ज्योतिर्विदां तथा॥
धनाधिपामरावीशयमानां वरुणस्य वा।

अधिके विहिते धाम्नि भयं विद्यान्महीपतेः ॥
स्कन्दधाम्नोऽधिकेऽन्यस्मिन् विहिते तस्य वेश्मनि ।
सेनापतेर्बलानां च पीडा सञ्जायते ध्रुवम् ॥
प्रजापतेरप्यधिकं हरेर्वान्यत् कृतं गृहम् ।
कर्तुः कारयितुश्च स्याद् बन्धाय च विनष्टये ॥
गणेशयक्षफणिनामधिकोऽन्यः कृतो यदि ।
प्रासादः स्यात् तदा नित्यं सेनाङ्गानां महोदयम् ॥
स्त्रीनाम्न्यो देवतास्तासां पीड्यन्ते यदि वेश्मभिः ।
मुख्यानां पुरनारीणां तदा कुर्वन्त्युपद्रवम् ॥
पूर्वामरेषु सर्वेषु पीडितेष्वमरालयैः ।
अन्यैस्तल्लिङ्गिनां पीडा चैत्यैर्वा चैत्यपीडितैः ॥
हीनाधिकप्रमाणेषु दुर्निविष्टेषु धामसु ।
कर्तुः कारयितुः पीडा स्यान्न पूजा तथास्य च ॥
पुरं चानाश्रितं कुर्याद् वेधभागाश्रितं न च ॥
ज्येष्ठमध्यकनिष्ठानि नवषट्त्रिपदान्तरे ।
सुरवेश्मानि कुर्वीत दोषाणापरथा पुनः ॥
कथितोऽयं विधिः स्वैः स्वैस्त्रिदशानां निवेशने ।
बहिर्निवेशनात् स्वेच्छं विदध्यादमरालयम् ॥
नगरेषु समग्रेषु ग्रामेषु निखिलेषु च ।
खेटकेषु च सर्वेषु सामान्योऽयं विधिः स्मृतः ॥

अ० पु० ७२. १३-२१

आनन्दश्च तथोत्कण्ठो जयन्तो रिपुमर्दनः ।
कर्णालयश्च चत्वारो वृत्ताकारेण संस्थिताः ॥
सिंहावलोकनाश्चैव योधविद्याधरीयकाः ।
एकान्तरप्रभेदेन क्रमेणापि सुसंस्थिताः ॥
षट्त्रिंशत्तश्च षड्वृद्धौ विदुरष्टोत्तरं शतम् ।
पुरे प्रासादसंख्याभिर्देवस्थानानि चत्वरे ॥
पुर्मानानि द्वादशैव चत्वरं देवसङ्ख्यया ।
अनुक्रमेण कर्त्तव्यं पुरच्छन्दानुरूपतः ॥
नोत्तराभिमुखाः कार्या न देवा दक्षिणामुखाः ।
पूर्वापरमुखाः कार्या वास्तुशास्त्रेषु गीयते ॥
पुरप्राकारवासे तु देवा यत्र च संस्थिताः ।
नगराभिमुखास्तेव मध्यमे च पराङ्मुखाः ॥
पराङ्मुखाः स्थिता ये तु शिवः सूर्यो विधिर्हरिः ।
हन्यते तत्पुरं राष्ट्रं राज्यध्वंसश्च जायते ॥
प्राकारोच्छ्रयाद् द्विगुणं तदन्ते परिखात्रयम् ।

अम्भो ? विमार्गशस्तादिग्विदिक्षु च जलाश्रयाः ॥
कनिष्ठे च पुरे पादात् मध्यमे च पदार्धतः ।
षोडशांशात् पुरे ज्येष्ठे ह्यरितिक्ते च बाह्यतः ॥
प्रतोली राजगेहाग्रे राजमार्गस्तदग्रतः ।
विस्तीर्णा विंशतिकरैर्द्विरद्वष्टादशाधमा ॥
हट्टश्रेणिस्ततः कार्या षोडशांशेन मार्गतः ।
बलिकर्मसमस्तानां हट्टोपरि गृहोत्तमम् ॥
विदिशासु पुरं कार्यं जगत्यास्त्रिगुणं शुभम् ।
युग्मगृहाश्च कर्त्तव्याः पक्षयोश्चैव सन्मुखाः ॥
प्रासादस्य प्रमाणेन पादोनेनाथवोच्यते ।
प्रासादार्धेतु कर्त्तव्या ज्येष्ठमध्यकनिष्ठिकाः ॥
एकभौमा द्विभौमा वा शाला निर्गमभूषिता ।
मत्तवारणसंयुक्ता निर्गताश्चित्रशालकाः ॥
जगत्यग्रे वामनं स्याद् भिट्टं तद्भुवि संस्थितम् ।
महोत्सवे च वासन्ते कुर्याद्धिन्दोलकं त्विह ॥
देवस्य परतः कार्या निगूढा नृत्यशालिकाः ।
पूर्वस्यामथवाग्नेय्यां वायव्ये वारुणे शुभम् ॥
शेषासु ह्यप्रशस्ताश्च आग्नेय्यां सत्रमण्डपम् ।
वास्तुवेदीसंस्थितं तन्मठः स्थाप्यस्तु दक्षिणे ॥
गृहं पञ्चारिकायुक्तं मैत्रस्थानसमाश्रितम् ।
यतिध्यानालयं कुर्यात् प्रलीना यत्र शासने ॥
पुरसीमान्तप्राकारे प्रतोलीहट्टमार्गयोः ।
जलाश्रयं जगत्यन्ते घटिमालासमुद्भवम् ॥
तीर्थान्ते तटिनीतटे जलनिधेस्तीरे सरित्सङ्गमे,
शैलाग्रेऽद्रितटे वनोपवनयोरुद्यानदेशे तथा ।
सिद्धाद्यायतनेषु वा गुरुवरो ग्रामे पुरे पत्तने,
वान्यत्रापि मनोरमे सुरसमिज्यायै क्षितिं कल्पयेत् ॥
प्राचि प्रतीचि च हरौ निजदिश्युमेशे
वायौ निसुम्भजिति तारकजित्युदीच्याम् ।
ग्रामादिकेषु निऋ‍र्तौ गणपार्ययोश्च ।
गृह्णातु भूमिमखिलेष्वपि मध्यतो वा ॥
परिघं तु त्रिदण्डादि यावद् द्वात्रिंशतिदण्डकम् ।
तदेव चाष्टदिशि च कर्तव्यं शिवमन्दिरम् ॥
परिघाभ्यन्तरे वापि पैशाचिकपदे गुरुः ।
मानुषे तु पदे वाथ कर्तव्यं शिवमन्दिरम् ॥

शिल्प०
६. १-१६

पैशाचिकपदे कुर्यादालयं तु पराङ्मुखम् ॥
मध्येऽजः स्वपदे धनेशतरणी प्रागीशमध्येषु मा।
शर्वाणीरमयोर्महेन्द्रदिशि गोशालेन्दुरक्षोग्निषु।
काली दण्डधराशरेन्दुषु जनन्यो + विधौ भारती
स्याद्वा क्षेत्रप ईश्वरेन्द्रशशिषु ज्येष्ठानिलाब्धीशयोः ॥
सूर्ये सूर्यो भृशे विष्णुस्तथाब्धीशे + + + + + ॥
+ + + + + + + + + सुग्रीवेशास्तुरालयम्।
भृङ्गे जनन्यो ज्येष्ठायां वायौ चण्डास्तु मुख्यके ॥
कुबेरे च महाकाल्यौ मातॄणां च निशाकरे।
अदितौ वास्तु चामुण्ड्याः शस्तमैशे शिवालयम् ॥
निर्ऋतौ वा जयन्ते वा गोशाला च वनेऽथवा।
देवतानां तु विन्यासमपरे जगुरन्यथा ॥
तद्ग्रामपुरराष्ट्राणां स्यान्मध्ये ब्रह्मणो गृहम्।
प्राच्यां वा पश्चिमे विष्णोर्ग्रामादीनां च सम्मुखम् ॥
पराङ्मुखं स्यादैशान्यां मानुषे शिवमन्दिरम्।
स्वयंभूर्दैवतं चार्षं यत्र तत्रैव शोभनम् ॥
प्राच्यामैशेऽथवा मध्ये गौर्याः सूर्यस्य च श्रियः।
मातॄणां दक्षिणे धाम शास्तुः काल्याश्च नैर्ऋते ॥
षण्मुखस्य च वारुण्यां ज्येष्ठायास्तदनन्तरम्।
वायौ सौम्ये च दुर्गाया लोकेशानां स्वगोचरे ॥
इन्द्रेशसौम्यमध्ये वा क्षेत्रपालनिवेशनम्।
गोशाला दक्षिणे प्राच्यामनुक्तानां तथैव च ॥
मन्दिरं कारयेत् तत्र युक्त्या (सर्वं) महामतिः।
उग्राः पराङ्मुखाः शस्ता नृणां सौम्यास्तु संमुखाः ॥
ईशादिम्रितेशपर्यन्तदिक्स्थाः ।
प्रासादा ग्रामादिकेषु ध्वजोत्थाः ॥
गोयोन्युत्थाः शेषदिक्संस्थितास्युः ।
स्तत्स्थाप्यार्चा चेच्यते तत्तयोनिः ॥

(ब) आरामोद्यानानि

टि० --पुरनिवेशमधिकृत्य आरामोद्यानानां यः विलासः समुज्जृम्भतेऽसौ देशस्या प्राचीनां पादपारोपणपरिपाटीं पुष्णाति। सूत्रग्रन्थेषु पुराणेषु आगमेषु धर्म-शास्त्रेषु च पादपारोपणस्य पूर्तधर्मे महन्महत्वम्। तथाहि "दशपुत्रसमस्तरुः"।

स० सू० एवं संशोध्य परिखात्रितयं परितोऽश्मभिः।
१०, २२-२४ विधेयमिष्टकाभिर्वा सम्यग्बद्धतलं स्थिरम् ॥

सिरावारिभिरापूर्णं पूर्णं वागामिनाम्भसा ।
विचित्राब्जमनोहारि ससंग्राहाम्बुनिर्गमम् ॥
सर्वपार्श्वेष्वथैतस्य गन्धान्धमधुपाङ्गनान् ।
सुमनोविटपारामान् कुर्याद् वासान् समुत्सुकान् ॥
बाह्यभागं पुनस्तस्य विदध्यात् सर्वतोदिशम् ।
द्रुममूलैर्लताजालैः कण्टकैरपि संवृतम् ॥

१०. ४१-४२ दृष्ट्वा दृष्ट्वोपभोगार्हान् सरिद्गिरिजलाशयान् ।
पक्षद्वाराणि कुर्वीत स्वेच्छया तत्र तत्र च ॥
जलभ्रमान् पुरे कुर्याच्छिलादारुतिरोहितान् ।
द्विकरान् करमात्रान् वा साम्भसोऽस्मिन् प्रदक्षिणान् ॥

स० सू० ग्रामादिष्वथ पर्जन्ये जलमार्गस्तथैन्द्रगः ॥
४. ६९-७० ईशार्गलान्तराले वा प्रागुदीचिप्लवो यथा ।

पुराणां प्रकारादिविन्यासः

स० सू० घण्टामार्गप्रमाणेन घण्टामार्गस्य बाह्यतः ।
१०. १६-४१ समन्ततो वप्रभुवं स्थापयेत् तद्विधानवित् ॥
महारथ्याप्रमाणेन तद्भूमेर्बाह्यतस्ततः ।
व्यासखातान्तरैः सार्धं विधेयं परिखात्रयम् ॥
खातोदूपादोज्झितं कार्यं स त्र्यंशेनार्धतोऽपि वा ।
व्यासतः स्यादशेषेण मूलतस्तद्वदेव तत् ॥
कुर्याद् वप्रं स्वभूभागे परिखोत्खातया मृदा ।
सोत्सङ्गं गजपृष्ठं वा गोत्रीयपदताडितम् ॥
खातोद्वृत्तमृदा वप्रनिर्माणाधिकया ततः ।
भूप्रदेशान् पुरा निम्नानापूर्य समतां नयेत् ॥
एवं संशोध्य परिखात्रितयं परितोऽश्मभिः ।
विधेयमिष्टकाभिर्वा सम्यग्बद्धतलं स्थिरम् ॥
सिरावारिभिरापूर्णं पूर्णं वागामिनाम्भसा ।
विचित्राब्जमनोहारि ससंग्राहाम्बुनिर्गमम् ॥
सर्वपार्श्वेष्वथैतस्य गन्धान्धमधुपाङ्गनान् ।
द्रुममूलैर्लताजालैः कण्टकैरपि संवृतम् ॥
वप्रोर्ध्वभागगं मध्यं स्थूलोपलशिलाचितम् ।
कुर्यात् प्राकारमुद्दामं यद्वा पक्वेष्टकामयम् ॥
ज्यायान् करैर्द्वादशभिर्दशभिर्मध्यमः स्थितः ।
कनीयानष्टभिर्हस्तैर्विस्तारः स्यात् त्रिधेत्यसौ ॥
उच्छ्रायः सप्तदशभिः करैर्ज्यायान् प्रशस्यते ।

मध्यमः पञ्चदशभिस्त्रयोदशभिरन्तिमः ॥
ऊर्ध्वं न सप्तदशकान्न त्रयोदशकादधः ।
प्राकारोच्छ्रयमिच्छन्ति नापि युग्मकरोन्मितम् ॥
हस्तेहस्तेऽङ्गुलद्वन्द्वमायतः सम्यगुच्छ्रयात् ।
यस्य वा द्वादशकरा मूले भवति विस्तृतिः ॥
चतु (रस्रो?र्हस्तो) च्छ्रितिस्तस्य शिरः स्याद् दशविस्तृतम् ।
हस्तोच्चं कपिशीर्षं स्याद् द्विहस्ता काण्डवारिणी ॥
कार्याः कर्णाश्रितैर्द्वारकर्णान्तस्थैश्च संयुताः ।
प्राकारेऽट्टालकास्तस्मिन् दिक्षुदिक्षु चतुर्दिशम् ॥
द्विभौमांश्चरिकोर्ध्वं च प्राकारोच्छ्रायविस्तृतीन् ।
तदर्धं निर्गमान् कुर्यात् ससालाट्टालकानथ ॥
शतं शतं स्याद्धस्तानां मिथश्चाट्टालकान्तरम् ।
इत्थं पुरमगम्यं स्यात् पत्त्यश्वरथदन्तिनाम् ॥
चरिकां संचरद्वारां सुखारोहां सवेदिकाम् ।
ससोपानां सनिर्यूहां कुर्यात् सकपिशीर्षकाम् ॥
राजमार्गमहारथ्यासंश्रितानि चतुर्दिशम् ।
त्रीणि त्रीणि विधेयानि पुरे द्वाराणि तद्विदा ॥
राजमार्गमहाद्वारचतुष्कं विस्तरान्नव ।
अष्टौ सप्त करानोच्चा द्विगुणं त्रिकरोज्झितम् (?) ॥
महारथ्याश्रयं द्वारं तत् षट्पञ्चचतुष्करम् ।
उच्छ्रयात् सार्धसार्धैकहस्तोनं विस्तरेण तत् ॥
कुर्यात् प्रतोलीः सर्वेषु महाद्वारेष्वथो दृढाः ।
दृढार्गलाश्चेन्द्रकीलाः कपाटपरिघान्विताः ॥
राजमार्गसमा शाला स्यात् प्रतोलीविनिर्गमा ।
तदर्धं कोष्ठकान्तः स्याद् व्यासोऽध्यर्धं तयोः स्मृतः ॥
चतुरश्रमिति न्यस्य प्रतोली वदनायताम् ।
व्यासतस्त्र्यंशविन्यस्तमार्गां मूषाद्वयान्विताम् ॥
अन्तर्भित्तौ चतुर्द्वारं महाद्वारेण सम्मितम् ।
विकल्पकोष्ठकान्तेषु दारुभिस्तद् विभूषयेत् ॥
द्वारे चोभयतः शाले द्वे द्वे द्वारे च मूषयोः ।
ते कार्ये सम्मुखे व्यासाद् द्विकरे द्विगुणोच्छ्रिते ॥
(प?त) दारुमूषयोः पट्टमध्यं पञ्चकरोच्छ्रितम् ।
तद्वत् कार्या द्वितीया भूर्द्वारशेषोदयोच्छ्रिता ॥
बहिर्द्वारविनिर्मुक्तां पूर्ववत् तां प्रकल्पयेत् ।
पुरःसंरोधनसहैर्गवाक्षैरग्रतो युताम् ॥

दलं ततो महाद्वारस्योर्ध्वं बद्ध्वा तृतीयकम् ।
शेषमट्टालसुहर्म्यसंयुक्तं सपरिक्रमम् ॥
सन्त्यक्तस्तत्समवेधम्यधूर्ध्वं तत्सांप्रकल्पयेत् ।
व्यालजालशतस्पन्दच्छराम्बयन्त्रादिभिर्वृतम् ॥
वृद्धिशोभाभिपुष्ट्यर्थं पुरस्य प्रविकल्पयेत् ।
बृहद्द्वाराणि परिच्छिन्नताभिः प्रतोलिभिः ॥
प्रतोल्या दक्षिणाद् भागादुच्छ्रितो वामतो गतः ।
यावद् द्वितीयं तस्यान्तर्नैकः कार्यो बहिः स्थितः ॥
द्वितीयो वामभागात् तु निर्गत्यास्यैव वेष्टकः ।
कार्यः स्यात्तदनुत्थानात् प्राकारस्तस्य बाह्यतः ॥
पुरयोरन्तरालं च राजमार्गेण सम्मितम् ।
कर्तव्यं स्यादिहैवं तु वप्रद्वारकमुत्तमम् ॥
दृष्ट्वा दृष्ट्वोपभोगार्हान् सरिद्गिरिजलाशयान् ।
पक्षद्वाराणि कुर्वीत स्वेच्छया तत्र तत्र च ॥

नगर-निवेशे वर्ज्याः निवेशाः

गर्हितपुराणि ।

स० सू०
१०. ५३-६८

छिन्नकर्णं विकर्णं च वक्रं सूचीमुखं तथा ।
वर्तुलं व्यजनाकारं चापाकृतिधरं च यत् ॥
शकटद्विसमं यच्च विस्ताराद् द्विगुणायतम् ।
विदिङ्मुखं सपंचकं च तत् पुरं निन्दितं भवेत् ॥
छिन्नकर्णे वसंल्लोकः पुरे तस्करतो भयम् ।
व्याधिभ्यो वापरेभ्यो वा प्राप्नोतीति विनिर्दिशेत् ॥
विद्विष्टस्वामिता सर्वलोकगर्हानपत्यता ।
जायते स्वल्पमायुष्यं विकर्णपुरवासिनाम् ॥
स्त्रीजयं विषरोगांश्च भेदांश्च विविधांस्तथा ।
जनो वसन्नवाप्नोति वक्राकृतिधरे पुरे ॥
व्रजन्ति प्राणिनो नाशं क्षुद्व्याधिपरिपीडिताः ।
निवसन्तः सदा सूचीमुखाकारवरे पुरे ॥
स्वामिना सह हीयन्ते सर्वतः सञ्चयोज्झिताः ।
स्वल्पायुषश्च जायन्ते जना वृत्तपुराश्रयाः ॥
असत्यवादिनः स्वल्पायुषः पवनपीडिताः ।
जनाः स्युश्चलचित्ताश्च नगरे व्यजनाकृते ॥
दुश्चरित्राङ्गनायुक्तस्तथा बहुनपुंसकः ।
चापाकारे पुरे लोको निवसन् भवति ध्रुवम् ॥

रोगशोकानलस्तेनभयं तत्र प्रजायते ।
शकटद्विसमाकारं पुरं यद् विनिवेश्यते ॥
आरम्भासिद्धिदं विप्रभयदं ज्ञातिभेदकृत् ।
पौराणां स्वामिनश्च स्याद् गजवाजिक्षयावहम् ॥
परैराक्रम्य भुज्येत तत् पुरं बलशालिभिः ।
द्विगुणायतसंस्थानं यत् क्वचिद् विनिवेश्यते ॥
जनक्षयोऽग्निदाहश्च स्त्रीकृतानि भयानि च ।
पुरे भवति दिङ्मूढे न च निर्योगमेति तत् ॥
शास्त्रानिलपिशाचाग्निभूतयक्षभयार्दिताः ।
रुक्पीडिताश्च नश्यन्ति भुजङ्गकुटिले जनाः ॥
पुराणामप्रशस्तानि संस्थानानीदृशानि यत् ।
एकस्मिन्नपि तेनैषां न पुरं विनिवेशयेत् ॥
संस्थानमेकमप्येषां प्रमादात् क्रियते यदि ।
तदा राष्ट्रं निपीड्येत क्षुद्व्द्विषद्भीतिमृत्युभिः ।

अ० पृ० ७३. १८–२५

अग्निदं वायवं चैव शकटं युग्मशाकटम् ।
वज्रं त्रिशूलमाख्यातं कर्णिकं चैव सप्तमम् ॥
एताः सप्तपुरश्चैव महादोषभयावहाः ।
तासां रूपं तथाकारं कथये तव साम्प्रतम् ॥
अग्निदं च त्रिकोणाख्यं षट्कोणं चैव वायवम् ।
शकटं शकटाकारं युग्मं द्विशकटाकृति ॥
वज्रकं वज्रसङ्काशं त्रिशूलं त्रिशूलाकृति ।
कर्णिकारविकर्णं तु चाकाराः कथितास्तव ॥
अग्निदेऽग्निभयं घोरं वायवं बहुक्लेशदं ।
शकटं तु पुरं चैव प्रजाक्लेशावहं स्मृतम् ॥
पुरे द्विशकटाकारे तस्करादिभयं भवेत् ।
वज्राकृति पुरं यत्र वज्रपातस्तदोद्भवेत् ॥
त्रिशूले च पुरे चैव सदा युद्धं समुद्भवेत् ।
कर्णिकारे च दुर्भिक्षं प्रजा तत्र न नन्दति ॥
इत्यादिसप्तदोषांश्च वर्जयेत् पुरदोषदान् ।
विंशतिः सुखदाः ख्याता दोषदाः सप्त एव च ॥

टि०—प्राचीनपुर - निवेशे राजहर्म्यादीनां सभान्यायालयवाजिशालागजशाल शालादीनां निवेशस्तु सर्वप्रधान आसीत् परमेतेषां समेषां निवेशनमत्रलक्षणे न दीयते लक्षणे तेषां प्रसङ्गत्वादिति ।

चतुर्थः पटलः

दुर्गलक्षणं-दुर्गनिवेशश्च ।

वि० वा० दुर्गाणां स्थापनं प्रायो भूपानामात्मरक्षकम् ।
दुर्गस्थापनम् तस्माच्छिल्पिगणैः कार्यं न तत्र नगरादिकम् ॥
१०.१–२ क्वचिद्यदि कृते तस्य निर्माणं रचयेत्क्रमात् ।
गिरिकाननभेदेन तद्द्वादशकमीरितम् ॥

१. गिरिदुर्गम् गिरिसानौ गिरेर्मध्ये मूर्ध्नि वा यत्प्रकल्प्यते ।
१०.३–५ गिरिदुर्गमिति प्रोक्तं मुनिभिश्शास्त्रपारगैः ॥
मध्यस्थदेवप्रासाददेवमन्दिरभूषितम् ।
मन्त्र्यादिपरिवाराणां भवनाद्यैस्समन्वितम् ॥
प्राचीमुखं प्रकर्तव्यमथवोत्तरदिङ्मुखम् ।
भटैः खड्गधरैरन्यैस्समन्तात्संवृताङ्गणम् ॥

२. वनदुर्गम् वनमध्यगतं दुर्गं वनदुर्गमुदीरितम् ।
१०.६–११ ऊर्ध्वस्थं भूमिभागस्थमन्तस्थं चेति तत्त्रिधा ॥
ऊर्ध्वस्थं तुङ्गभूमिस्थं भूमिस्थं भूतलाश्रितम् ।
सुरङ्गाश्रितमन्तस्थं बोध्यं शिल्पपरायणैः ॥
शिलापरम्परातुङ्गभागस्थे दृढभित्तिके ।
रक्षाकैर्यामिकैरन्यैः परीते च समन्ततः ॥
दुर्गे प्रागानने स्थाप्यं भूमिपालस्य मन्दिरम् ।
मन्त्र्यादिपरिवाराणां भवनानि प्रकल्पयेत् ॥
सुरङ्गादुर्गके स्थाप्यं योधायुधधनादिकम् ।
तलाश्रितं तु यद्दुर्गं तुङ्गप्राकारसंयुतम् ॥
नलीकस्थानभाक्कोणेष्वन्तर्द्वाराश्रितं तथा ।
प्रस्तरोक्तप्रमाणेन कारयेदन्यकल्पनम् ॥

३. जलदुर्गम् पारावारेण नद्या वा संवृतं स्थलमुत्तमम् ।
१०.१२–१५ कथितं शिल्पशास्त्रज्ञैर्नाम्ना सलिलदुर्गकम् ॥
भूपालस्येच्छया कर्मन्तद्दुर्गप्रकल्पनम् ।
दुर्गभित्तेरुभयतस्तूपकुड्यासमन्वितम् ॥
मध्यस्थराजभवनममात्यादिस्थलोज्ज्वलम् ।
स्थलानुकूलतः स्थाप्यमन्यवासादिकं पुनः ॥
सेनावासं ससम्भारं स्थापयेच्च समन्ततः ।
ससालं सहितं वीरैर्यामिकैस्तटरक्षकैः ॥

४. इरिणदुर्गम् सलिलैस्तरुषण्डैश्च लताद्यैश्च विवर्जिते ।
१०.१६–२० दुष्प्रवेश्ये स्थले तुङ्गे सोपानालिसमन्विते ॥
निम्ने वाऽथ स्थले क्लृप्तमिरिणं दुर्गमिष्यते ।

पर्वतावृतं तन् मध्ये (च) पर्वतस्य समीपके ॥
पर्वताग्रप्रदेशे तु गिरिदुर्गमिति त्रिधा ।
तलपर्जन्यान्तरो (र) युक्तं गगनं च प्रवेशनम् ॥
एतत्तु वनदुर्गं स्याज्जलदुर्गमिहोच्यते ।
समुद्रैश्च नदीभिश्च संवृतं जलदुर्गकम् ॥
पर्वतं (त) कन्दरैर्युक्तं दुष्प्रवेशं च शत्रुभिः ।
दुर्गं तु कृत्वा नृपतिस्तिष्ठेत्तत्पङ्कदुर्गकम् ॥
वनाभावे जलाभावे सर्वशून्यादिदूषकम् ।
चोरैश्च सङ्कुलस्थानं निर्ग्रामं रथदुर्गकम् ॥
ब्रह्मराक्षसवेतालं (ल) भूतप्रेतादिभैरवैः (वाः) ।
शिलावर्षं प्रवर्षन्तीरा (न्त्या) लोकय वेशनिर्गमे ॥
मन्त्रतन्त्रादिसामर्थ्यैः कृतान्तं देवदुर्गकम् ।
अनेकपर्वतोपेतं नानावनसमिश्रकम् ॥
तत्रास्थितं तु तद्दुर्गं मिश्रदुर्गमिति स्मृतम् ।
सर्वेषामपि दुर्गाणां वप्रैश्च परिवै (खाभि) वृतम् ॥
प्रवेशनिर्गमस्थाने द्वारैरपि समन्वितम् ।
इष्टकादिकृतं वप्रं हस्तद्वादशकोच्छ्रितम् ॥
तदर्धभित्तिमूले तु संचारैः सह विस्तृतम् ।
नगराणां तु सर्वेषां वक्ष्ये विन्यासलक्षणम् ॥
प्राक् प्रत्यग्गतमायामं दक्षिणोत्तरसमन्वि (संयु) तम् ।

मय० १०. २६–४१

गिरिवनजलपङ्करिणदेवतमिश्राणि सप्त दुर्गाणि ॥
गिरिमध्यं गिरिपार्श्वं गिरिशिखरं पार्वतं दुर्गम् ।
अजलं तरुवनगहनं वनदुर्गं तदुभयं तु मिश्रं स्यात् ॥
दैवं तु सहजदुर्गं पङ्कयुतं पङ्कदुर्गं स्यात् ।
नद्यब्धिपरिवृतं यज्जलदुर्गं निम्नोन्नमिरिणं स्यात् ॥
अक्षयजलान्नशस्त्रं ह्यतिविपुलोत्तुङ्गघनसालम् ।
सर्वं हि दुर्गजालं सप्राकारं त्वनेकमुखरक्षम् ॥
बहिरुदकं रहितवनं छन्नपथं दुष्प्रवेशं च ।
गोपुरमण्डपयुक्तं सोपानच्छन्नमच्छन्नम् ॥
द्विकवाटचतुष्परिघार्गलहस्तोन्नतेन्द्रकीलयुतम् ।
सस्थूणमध्यमालयमिण्ठकसहितं सगूढसोपानम् ॥
द्वाराणि मण्डपसभाशालाकाराणि कार्याणि ।
द्वादश सालाकाराश्चतुरं वृत्तं तदायतं च पुनः ॥
चक्रं वृत्तं कौक्कुटमिह कुम्भं नागवृत्तं च ।
भग्नचतुरं त्रिकोणमष्टाश्रं नेमिखण्डं च ॥

प्राकाराश्चेष्टकया द्वादशहस्तोच्छ्रिताहीनाः ।
उत्सेधार्धविशाला मूले भित्तिः ससञ्चारा ॥
सर्वस्याभ्यन्तरतः पांसुचयोपर्यनेकयन्त्रयुतम् ।
परितः परिखोपेतं पांसुचये संहताट्टालम् ॥
परितः शिविरोपेतं नानाजनवाससङ्कीर्णम् ।
नृपभवनसमोपेतं हस्त्यश्वरथपदातिबहुमुख्यम् ॥
धान्यैस्तैलैः क्षारैः सलवणभैषज्यगन्धविषम् ।
लोहाङ्गारस्नायुत्रिषाणवेणिवन्धनैर्युक्तम् ।
तृणचर्मकारयुक्तं सवल्कलं सारदारुयुतम् ।
दुर्गं दुर्गमयुक्तं दुर्लङ्घ्यंदुरवगाहं च ॥
रक्षार्थं च जयार्थं ह्यरिभिरभेद्यं च दुर्गमिष्ट स्यात् ।
इन्द्रश्च वासुदेवो गुहो जयन्तश्च वैश्रवणः ॥
अश्विन्यौ श्रीमदिरे शिवश्च दुर्गा सरस्वती चेति ।
प्राकारान्तर्दिव्या दुर्गनिवेशे च विज्ञेयाः ॥
एवं दुर्गविधानं सम्यक् प्रोक्तं पुरातनैर्मुनिभिः ।
सर्वेषां विन्यासं संक्षेपाद् वक्ष्यते क्रमशः ॥
शिल्प० पर्वते वा वने वाब्धौ दुर्गं स्याद्वा जलावृतम् ।
दुर्गं तु पार्वतं वन्यमौ(द)कं चैरणं तथा ।
५. ८-२४ दैवकं धावनं चैव कृतकं चेति सप्तधा ।
नृपभवनसमोपेतं हस्त्यश्वरथपदातिबहुलमुख्यम् ।
धान्यस्नेहक्षारलवणभैषज्यगन्धविषयुक्तम् ॥
लोहाङ्गारस्नायुविषाणवेणिवन्धनादिसर्वयुतम् ।
तृणचर्मशाकयुक्तं वल्लूरकसारदारुसंयुक्तम् ॥
दुर्गं दुर्गमयुक्तं दुर्लङ्घ्य दुरवगाहमतिमात्रम् ।
रक्षार्थं च जयार्थं त्वरिभिरभेद्यं च दुर्गमिष्टं स्यात् ॥
गिरिमध्यं गिरिपार्श्वं गिरिशिखरं पार्वतं दुर्गम् ।
निर्जल (तल?) तरुवनगहनं वनदुर्गं तदुभयमिश्रं स्यात् ॥
तदेव सह(ज)जलं चेज्जलदुर्गं पङ्कयुक्तं वा ।
नद्यब्ध्यावृतकं यज्जलदुर्गं निगदितं पूर्वैः ॥
अक्षयजलत(रु)विपुलैरणगहनसालमैरणं प्रोक्तम् ।
इन्द्रश्च वासुदेवो गुहो जयन्तश्च वैश्रवणः ॥
अश्विन्यौ श्रीमन्दिरशिवौ च दुर्गा सरस्वती चेति ।
प्राकारस्थास्त्वेते यस्मिंस्तद् दिव्यदुर्गं स्यात् ॥
धावनकृतकौ दुर्गौ विज्ञेयौ स्वस्वनामसदृशतरौ ।
एकोनविंशतिविधं दुर्गं प्रायेण कथितं स्यात् ॥

अक्षयजलान्नभक्षमतिविपुलोर्थगहनसालम् (?)।
सर्वं हि दुर्गजातं सप्राकारं च सुखरक्षम्॥
बहिरुदकरहितवनच्छन्नपथं दुष्प्रवेशं च।
गोपुरमण्डपयुक्तं सोपानं छन्नमच्छन्नम्॥
द्विकवाटचतुष्कुटिकाद्व्यर्गलकं करमानद्विकीलम्।
सस्थूणमध्यमालं त्विष्टकसहितं च सुदृढसोपानम्॥
द्वाराणि मण्डपसभाशालागाराणि कार्याणि।
पांसुचययुक्तमार्गं विधिवत् कार्यं हि सर्वत्र।
परितः शिविरोपेतं नानाजनवाससङ्कीर्णम्॥
द्वादशसालायुक्तं चतुरं वृत्तं तदायतं वापि।
नन्द्यावर्तं कौक्कुटमिभकुम्भनागवृत्तं च॥
नेमिच्छिन्नं च त्रिकोणं षट्कोणाष्टाश्रनेमिखण्डं च।
प्राकारं चेष्टकया द्वादशहस्तोच्छ्रयाद्धीनम्॥
उत्सेधार्धविशालं कार्यं स्यात् सर्वदुर्गेषु।

ग्राम-नगर-शोभायाम्

टि०—ग्राम-नगर-शोभायां प्राचीन-शिल्पग्रन्थेषु बहु निर्दिष्टमस्ति। तथाहि कुत्रचिन् द्वाराणां विलासः, कुत्रचिद्गोपुराणां प्रसारः, कुत्रचित्प्राकाराणां शोभा, कुत्रचिद्वापीतटाकका दीनामभिख्या तु सुतरां तत्र तत्र दर्शनीया आसन्नेव परं ततोऽपि दर्शनीयतरआसीत् केन्द्र-विन्य वैभवः तथाहि चतुष्पथेषु सभाशाला-मण्डप-देवागाराणां सुनिवेशं मुहुर्मुहुर्कीर्त्यमानाः प्राचीनान न कदापि विरमन्तिस्म। ग्राम-शोभायाञ्च वाटिकारोपणन्तु बहुशःकीर्त्यमानं दृश्यते तथाहि बृहद्व मालायाम्—

वाटिका वा तडागो वा कूपो वा यदि निर्मितः।
गृहात्पूर्वे कुवेर्यां च वारुणे शम्भुकोणके॥
सदा सवित्री भविता सदा दानं प्रयच्छति।
सदा यज्ञं स पूज्येत यो रोपयति पादपम्॥
आम्राणां वाटिका चैव द्वितीयाश्वत्थवाटिका।
तृतीया वटवृक्षाणां चतुर्थी प्लक्षवाटिका॥
पञ्चमी निम्ब वृक्षाणां षष्ठी जम्बुकवाटिका।
चिञ्चिणीवृक्षसम्भूता सप्तमी परिकीर्तिता॥
एतासां वाटिकानाञ्च प्रशस्ता चाम्रवाटिका।
फलदा पुण्यदा चैव पापं संहरते ध्रुवम्॥
न तत्करोत्यग्निहोत्रं न पुत्रा योषितोद्भवाः।
यत्करोति वनच्छायः पादपः पथि रोपितः॥

तृतीयः खण्डः

(भवन-वास्तु)

प्रथमः पटलः

टि०—भवनं द्विविधं मानववास्तु देववास्तु च । तत्र देववास्तु त्वग्रिमे प्रासाद-पटले वक्ष्यमाणमित्यत्र मानव-वास्तु-भवनलक्षणे प्रथमस्यैव नाना वर्गाः समापतन्ति । तेषां साधारण-भवनानि (समराङ्गणदिशा शाल-भवनानीत्यर्थः) राज-भवनानि च द्वौ वर्गौ सविशेषमुपश्लोकनीयौ । अन्य-वर्गेषु सभा-शाला-वाजिशाला-गजशाला-न्यायशालादीनां समावेशः । भवन-लक्षणे वापी-कूप-तट कादीनामपिविशिष्ट-भवनेष्वन्तर्भावो भविष्यतीति तेषमपि लक्षणं दास्यते ।

प्राथमिकेषु भूखननं हलकर्षणं माङ्गलिकञ्च

वि० वा० ६. १–२६

परीक्षकैश्शास्त्रविद्भिर्नानोपायैः परीक्षिताम् ।
उत्तमां मध्यमां वापि भूमिं प्राप्य बुधोत्तमः ॥
श्वेतमाल्याम्बरधरैः श्वेतगन्धानुलेपनैः ।
भृत्यैराप्तैश्शुद्धवाग्भिस्सल्लक्षणसमन्वितैः ॥
शुभे मुहूर्ते सल्लग्ने खनित्रादीनथार्चयेत् ।
नवा भूरथवा पूर्वं प्रजाध्युषितभूर्यदि ॥
नरेन्द्रैर्ग्रामनिर्माणकार्यार्थं स्वीकृता भवेत् ।
वास्तुनाथार्चनं शस्तं श्रोत्रियैर्वेदपारगैः ॥
पुण्याहं वाचयेत्पूर्वं विप्रैरागमवेदिभिः ।
प्रोक्षयेत्तज्जलैर्दिव्यैश्शान्तिहोमं च कारयेत् ॥
वास्तुस्वरूपं विज्ञाय हेमगन्धाक्षतादिभिः ।
वास्तुनाथार्चनं कुर्यात्कारयेद्वा द्विजोत्तमैः ॥
भूदेवीमर्चयेत्पश्चाद्गन्धपुष्पाक्षतादिभिः ।
तदनुज्ञां समासाद्य शुभकाले प्रसन्नधीः ॥
भूसमीकरणं कार्यं महोक्षैश्श्वेतवर्णकैः ।
बलिकर्मविधानञ्च राष्ट्रक्षेमकरं भवेत् ॥
ब्राह्मणान्भोजयेत्पश्चात्तोषयेद्दक्षिणादिभिः ॥
समीकृते स्थले पूर्वमैशान्यां खननं शुभम् ।
वारुण्यामथवा कार्यं शुभकाले विशेषतः ॥
इष्टिकान्यसनात्पूर्वं पूरयेद्गर्भमादरात् ।
स च विप्रादिभेदेन चतुर्धा सन्निगद्यते ॥

ब्राह्मं गर्भं पूरयेत्तु पुस्तकैर्यज्ञसूत्रकैः ।
क्षात्रं गर्भं पूरयेच्च खड्गच्छत्रादिभिर्दृढम् ॥
वैश्यं गर्भं पूरयेच्च तुलाद्रव्यादिकैरपि ।
शूद्रं गर्भं पूरयेच्च सीरकैर्वस्त्रकैरपि ॥
देवालये दैवगर्भे रत्नन्यासो विशेषतः ।
दैववास्तुषु सर्वेषु सौवर्णं भाजनं शुभम् ॥
सौवर्णं राजतं वापि ब्रह्मक्षत्रियवास्तुषु ।
शूद्रजानां विशां शस्तं राजतं भाजनं मतम् ॥
अन्येषां वास्तुभूमौ तु ताम्रजे भाजनं शुभम् ।
भाजनं पट्टिका वापि पृथुपट्टमथापि वा ॥
स्त्रीगर्भेण यथा जीवो वर्धते भुवि नित्यशः ।
तथा भूगर्भमाहात्म्यात् जीवराशिस्तु वर्धते ॥
तत्रत्यानां सुखं दिव्यं यावद्गर्भो न नश्यति ।
तस्माद्गर्भं शिल्पिवरैश्शाश्वतं कारयेद्भुवि ॥
तच्च चिह्नं लिखेत्पट्टे गन्धपुष्पार्चनं तथा ।
तत्पट्टं भाजने न्यस्य तन्मञ्जूषागतं नयेत् ॥
वास्तुभूमध्यदेशे तां मञ्जूषां स्थापयेद्बुधः ।
गन्धमाल्यार्चनं शस्तं जयशब्दपुरस्सरम् ॥
आच्छाद्य तां मुदा शिल्पी वास्तुनाथं हृदि स्मरेत् ।
ब्राह्मणांस्तोषयेत्पश्चाद्भोजनाद्यैर्विशेषतः ॥
सर्ववास्तुष्विदं शस्तमीरितं शास्त्रपारगैः ।
समीकृतस्थले पूर्वमैशान्यां खनने कृते ।
वारुण्यामथवा शस्ते लग्नकाले विशेषतः ॥
इष्टिकान्यसनं कार्यं स्वस्तिघोषपुरस्सरम् ।
पुरन्ध्रीभिश्च कन्याभिरवटे जलसेचनम् ॥
कारयेत्कार्यकालज्ञश्शिल्पी सर्वेषु वस्तुषु ।
दीपारोपं हेमवर्षं नानादानानि कारयेत् ॥
सर्वमङ्गलघोषैश्च स्वस्तिशब्दैश्च शिल्पिराट् ।
वास्तुं प्रदक्षिणीकृत्य वरवस्त्रोत्तरीयकः ॥
मङ्गलाचरणं कृत्वा प्राक्स्वर्गादिदक्षिणः ।
कङ्कणं च करे धृत्वा ज्ञापयेत्कशतक्षकौ ॥
सम्यक्कप्तं वक्रहीनं ककशं कुङ्कुमान्वितम् ।
सूत्रप्रसारे कलिते वास्तुनिर्माणभूमिषु ॥
ऐशान्यां विन्यसेत्प्राज्ञः ककशं तं प्रसन्नधीः ।
स्मृत्वा मनसि कार्यज्ञो देवता मङ्गलप्रदाः ॥

अधोभित्यादिकं कृत्वा दृढीकुर्याच्च तद्बुधः ।
रक्षयेच्च यथा तत्र दूषणं न प्रसज्यते ॥
दृढीकृतेऽथ भित्यादिकर्म कुर्याद्यथाविधि ।
इत्येवं तक्षकमुखैः कार्यज्ञैर्ज्ञेयमीरितम् ॥

मान० ९. १८॥—४३

कामधेनुसमां क्षोणीं स्वीकुर्यात्तु विभूतये ।
कर्षणार्थं बलीवर्दलक्षणं वक्ष्यतेऽधुना ॥
श्वेतकं कपिलं चैव रक्तपीतं तथैव च ।
बलीवर्दस्य चै(र्दानामे)तेषामेकैकं तु शुभावहम् ॥
एकस्य(कं च)वर्णसाङ्कर्यं वर्जयेद्दण्डलाञ्छनम् ।
अधो (धः) श्रृङ्गमतिश्रृङ्ग (ङ्गं) विपरीतं (तु) विवर्जयेत् ॥
अतिबालं च वृद्धं तु वर्जयेद्योनने (द्योजने) मतम् ।
बलि(ली)वर्दं दृष्टविन्दुं दुष्टदृष्टिं च वर्जयेत् ॥
ह्रस्वपुच्छं चक्रखुरं बलहीनं च वर्जयेत् ।
छिन्नश्रोत्रं भग्नदन्तं पङ्गुपादं च वर्जयेत् ॥
चतुष्पादाग्रयोः(ग्रे च)श्रृङ्गं मूल(श्रृङ्गमूले)मध्यललाटके ।
स्वभावेन श्वेतवर्णमाबद्धतिलकं तथा ॥
पुष्पनेत्रं च रक्तं च बन्धं चायतेक्षणम् ।
अनस्पान(नड्वाहं न)त्यजेद्विद्वान्सूत्रं कुर्याद्विलक्षणम् ॥
श्रृङ्गाग्रे खुराग्रे च कुर्यात्स्वर्णेन गोलकम् ।
फा(भा)लपट्टं तथ कर्णं कनकैश्चाप्यलङ्कृतम् ॥
कर्षणात्पूर्वदिवसे अनस्वाश्चैव(नड्वाहं च)लाङ्गलम् ।
कौतुकं बन्धनं चादौ कर्षणार्थम(णाया)धिवासितम् ॥
कुर्यात्तदुक्तवद्विद्वान्वक्ष्ये लाङ्गललक्षणम् ।
बन्धुरं खादिरं चैव निम्बं च सरलं तथा ॥
सरक्तक्षीरिणी चैव लाङ्गलं(ल)वृक्षमि(क्ष इ)ष्यते ।
एकहस्तं तु दीर्घं स्यात्सपादाद्यर्धमेव च ॥
त्रिचतुष्पञ्चमात्रं वा लाङ्गलं(ल)मूलविस्तृतम् ।
तस्यायामार्धं तन्मध्ये(र्धमध्ये च)किंचिद्वक्रं सकर्णकम् ॥
मूलमष्टाश्रकं चार्धत्रिपट्टं वेणुपत्रवत् ।
तस्य मूले तदुपरि वेणुश्रृङ्गं प्रवेशयेत् ॥
वेणुदण्डं त्रिहस्तं स्याद्दीर्घतारां(रं)यथाबलम् ।
पुच्छायाम(म)ध्यर्धकरं मूलतारं शराङ्गुलम् ॥
अथवा सपादहस्तं च हस्तं वा पुच्छदीर्घकम् ।
पुच्छाग्रं तु द्विमात्रं तु हलमूलावसानकम् ॥
एकाद्यर्धाङ्गुलं वाऽपि युक्त्या पुच्छं घनं भवेत् ।

पुच्छमूल(लं)विशेषेण पद्मपत्रेण भूषितम् ॥
त्रिचतुष्पञ्चयवमात्रं पुच्छाग्रैः पट्टदीर्घकम् ।
उत्सेधं द्वित्रिमात्रं वा सर्वालङ्कारसंयुतम् ॥
अयष्कीलं तत्र कुक्षौ योजयेत्तदकेन तु ।
सार्धद्विहस्तमानेन युगायामं प्रकल्पयेत् ॥
त्रिचतुष्पञ्चमात्रं वा मध्यपट्टविशालकम् ।
तद्द्वयोरग्रविस्तारं द्वित्रिय(न्य)ङ्गुल(क)मेव च ॥
एतद्यु(तद्धि यु)गमानं स्यान्मध्याग्रान्तक्षयं(य)क्रमात् ।
तस्यार्धं च द्वयोश्छिद्रैरनड्वन्(द्विच्छिद्रान्तेऽनडुद्)बन्धार्थकं भवेत्
युगमध्ये द्वयोर्वापि लाङ्गलं चापि बन्धयेत् ।
सुमुहूर्ते सुलग्ने च कर्षणं तु समारभेत् ॥
अनडूवाहौ स्थपतिश्चोभौ(तिश्च)गन्धपुष्पैः स्वलंकृतौ(ताः) ।
पञ्चाङ्गभूषण (णः) शिल्पी श्वेतवस्त्रोत्तरीयवान् ॥
आदित्यचन्द्रौ ध्यायेत्तद्बलीवर्दद्वयं बुधः ।
वाराहं लाङ्गलं ध्यायेच्छिल्पिनं तु पितामहम् ॥
ब्राह्मणैश्च यथाशक्ति वाचयेत्स्वस्तिवाचनम् ।
सर्वमङ्गलघोषैश्च स्थपतिः कर्षयेत्तदा ॥
शूद्रोऽपि कृषिकाले तु शुद्धो भूत्वा समाहितः ॥

(व) गृहारम्भ-काल-लक्षणम्

वि० वा० ३. १–६

आदौ कालं परीक्षेत सर्वकार्यार्थसिद्धये ।
कालो हि सर्वजीवानां शुभाशुभफलप्रदः ॥
कालातिक्रमणे दोषो द्रव्यहानिश्च जायते ।
देवानामपि देवीनां विप्रादीनां विशेषतः ॥
प्रासादभवनारम्भे स्तम्भस्थापनकर्मणि ।
द्वारस्थापनवेलायां भवनानां प्रवेशने ॥
वापीतटाकनिर्माणे गोपुरारम्भकर्मणि ।
विमानमण्डपारामगर्भगेहोद्धृतौ तथा ॥
कालं शुभं परीक्षेत मङ्गलावाप्तिसाधकम् ।
देशभेदेन कालोऽपि भिन्नतां प्रतिपद्यते ।
इष्टिकान्यसनं शस्तं शुभकाले विशेषतः ।
तस्मात्सर्वप्रयत्नेन शुभं कालं न लङ्घयेत् ॥

स० सू० सूत्रपातविधौ निषिद्धाः मासाः २६. १–११॥

इदानीमभिधास्यामः सूत्रपातविधेः क्रमम् ।
शस्ते मासि सिते पक्षे विदध्यात् तं शुभेऽहनि ॥
चैत्रे शोकाकुलो भर्ता वैशाखे च धनान्वितः ।
ज्येष्ठे गृही विपद्येत नश्यन्ति पशवः शुचौ ॥

श्रावणे धनवृद्धिः स्यान्नभस्ये न वसेद्गृहे।
कलहश्चाश्विने मासि भृत्या नश्यन्ति कार्तिके॥
मार्गशीर्षे धनप्राप्तिः सहस्ये कामसम्पदः।
माघे वह्निभयं चैव फाल्गुने श्रीरनुत्तमा॥
द्वितीया पञ्चमी मुख्यसप्तमी नवमी तथा।
एकादशी त्रयोद(श्यस्ति?)श्यौ तिथयः स्युः शुभावहाः॥
चन्द्रताराबलं भर्तुरनुकूलं च शस्यते।
इयं हि सूत्रपाताख्या क्रिया प्रासादकर्मणि॥
कार्या पुरनिवेशे च प्रारम्भे भवनस्य च।
शिलानिवेशने द्वारस्तम्भोच्छ्रायादिकेषु च॥
आद्रियेत सिते पक्षे शोभने लग्न एव हि।
रवौ कन्यातुलालिस्थे गृहं वरुणदिङ्मुखम्॥
न कुर्यात् तद्धि शून्यं स्यान्न च वृद्धिर्भवेत् प्रभोः।
न दक्षिणमुखं कुम्भमृगधन्वि स्थिते रवौ॥
कुर्वीत निष्फलं तत् स्यान्नृपदण्डवधादिकृत्।
न मीनवृषमेषस्थे कुर्वीत प्राङ्मुखं रवौ॥
तद् धनघ्नं कलिक्षुद्राजचौरार्तिकृद् यतः।
रवौ मिथुनसिंहस्थे न कर्किस्थेऽप्युदङ्मुखम्॥
कुर्यात् तद्धि दरिद्रत्वं दद्याच्च रणदासताम्।

अ० पु० ६३. १-८

इदानीमभिधास्यामः सूत्रपातविधिक्रमम्।
शस्ते मासे सिते पक्षे सुलग्ने च शुभे दिने॥
चैत्रे शोकाकुलो भर्ता वैशाखे च धनान्वितः।
ज्येष्ठे गृहा निपद्यन्ते आषाढे पशुनाशनम्॥
श्रावणे धनवृद्धिश्च भाद्रे तु न वसेद् गृहे।
कलहश्चाश्विने मासे भृत्यनाशश्च कार्तिके॥
मार्गशीर्षे धनप्राप्तिः पौषे वै कामसंपदा।
माघे चाग्निभयं कुर्यात् फाल्गुने श्रियमुत्तमाम्॥
तृतीया पञ्चमी चैव सप्तमी नवमी तथा।
एकादशीत्रयोदश्यौ तिथयश्च सुखावहाः॥
चन्द्रताराबलं भर्तु राजमानं हि शस्यते।
सूर्यपाततिथिं दद्याद् विष्टिगण्डान्तवर्जितम्॥
इह वै सूत्रपातैश्च क्रियाः प्रासादकर्मणि।
कार्याः पुरनिवेशे तु प्रारम्भे भवनस्य च॥
भूम्यारम्भे शिलान्यासे द्वारस्तम्भोच्छ्रयादिषु।
आदित्ये चोत्तरस्थे च शोभने लग्न एव च॥

वास्तुराज०
१. ६-९

सिद्ध्यै गृहारम्भमुशन्ति वृद्धा यथोदिते मासि वलक्षपक्षे।
शशाङ्कवीर्ये सुदिने निमित्ते शुभे रवौ सौम्यगते प्रवेशम् ॥
चैत्रे शोककरं गृहादिरचितं स्यान्माधवेऽर्थप्रदं,
ज्येष्ठे मृत्युकरं शुचौ पशुहरं तद्वृद्धिदं श्रावणे।
शून्यं भाद्रपदे त्विषे कलिकरं भृत्यक्षयं कार्तिके,
धान्यं मार्गसहस्ययोर्दहनभीर्माघे श्रियं फाल्गुने ॥
आदित्ये हरिकर्कनक्रघटगे पूर्वापरास्यं गृहं,
कर्तव्यं तुलमेषवृश्चिकवृषे याम्योत्तरास्यं तथा।
द्वारं भिन्नतया करोति कुमतिर्द्रव्यप्रणाशस्तदा,
कन्यामीनधनुर्गते मिथुनगे चास्मिन्न कार्यं गृहम् ॥
कन्यादित्रिषु पूर्वतो यमदिशि त्याज्यं च चापादितो
द्वारं पश्चिमतस्त्रिके जलचरात् सौम्ये रवौ युग्मतः।
तस्माद् व्यस्तदिशामुखं तु भवनद्वारादिकं हानिकृद्
सिंहे चाथ वृषे च वृश्चिकघटं याते हितं सर्वतः ॥

(ख) कीलक-सूत्रपातादि-लक्षणम्

स० सू०
३७. १-८१॥

वर्णानां यानि दारूणि कीलकार्थं नियोजयेत्।
इदानीं तानि वक्ष्यामि श्रेयः कीर्त्तिहिताय च ॥
खदिरोदुम्बराश्वत्थशालशाकधवार्जुनाः ।
अञ्जनः कदराशोकतिनिशारुणचन्दनाः ॥
शिरीषसर्जन्यग्रोधवेणवः कीलकर्मणि।
पुन्नामानो द्रुमाः शस्ताः स्त्रीनामानो विगर्हिताः ॥
अश्वत्थः खदिरश्चैतौ विप्राणां वृद्धिकारकौ।
रक्तचन्दनवेणुस्थकीलौ क्षत्रस्य पूजितौ ॥
शाकश्च खदिरश्चेति सामन्तानां हिताविमौ।
कीलौ शालशिरीषोत्थौ वैश्यानां कीर्तितौ शुभौ ॥
शूद्रजातेस्तु तिनिशधवार्जुनसमुद्भवाः।
वैश्यवेश्मसु सौभाग्यकार्ये च स्युरशोकजाः ॥
न्यग्रोधो वणिजां धाम्नि भूमिकर्मण्युदुम्बरः।
महामा (त्र?त्रो) स्ववैद्यानां कीलाः सर्जार्जुना गृहे ॥
विप्राणां सर्ववर्णोत्थाः क्षत्रियाणां त्रिवर्णजाः।
वर्णद्वयोक्ता वैश्यानां शूद्राणां स्वानुलोमतः ॥
प्रतिलोमा न कर्त्तव्याः कीलका भूतिमिच्छता।
प्रमाणान्यथ कीलानां निगद्यन्ते पृथक् पृथक् ॥
द्वात्रिंशदङ्गुलाः कीला विप्राणां स्युः शुभावहाः।

क्षत्रियाणां पुनश्चाष्टाविंशत्यङ्गुलसम्मिताः ॥
चतुर्विंशत्यङ्गुलाश्च वैश्यानां शुभदायिनः ।
विंशत्याद्यङ्गुलैः कीलाः शूद्रजातेस्तु ते हिताः ॥
षडङ्गुलपरीणाहाः सर्वेष्वेते शुभावहाः ।
ब्राह्मणक्षत्रियविशां वेदाष्टाश्रषडश्रयः ॥
षडश्रयस्तु शूद्रस्य प्रकृतेस्तु यदृच्छया ।
दार्भमौञ्जौर्णकार्पासं विप्रादीनां यथाक्रमम् ॥
अर्धपर्वपरीणाहं दृढं सूत्रं तु वर्तितम् ।
अलाभे स्वस्य सूत्रस्य प्रोक्तादन्यतमं बुधः ॥
गृह्णीयात् सूत्रमन्ये तु गृह्णीयुः स्वेच्छयैव ते ।
इत्थं संभृत्य सम्भारान् गृहभर्ता शुभेऽहनि ॥
शुक्लपक्षे शुचिः स्नातः स्थपतिश्च सिताम्बरः ।
गृहस्थाननिमित्तात् तु देवस्थानानि लक्षयेत् ॥
कुसुमाक्षतमाल्यैश्च कर्तव्या गृहदेवताः ।
आदौ स्थानानि संकूनां परीक्षेत समन्ततः ॥
तेषु सर्वेषु कर्तव्यमर्चनं तु यथाविधि ।
गृहस्य मध्ये सिक्त्वा तु निरूप्य ब्रह्मणः पदे ॥
गोमयेन समालिप्तां कुर्याद् वेदीं सुलक्षणाम् ।
चतुरश्रां चतुर्द्वारामक्षतैः सुप्रतिष्ठिताम् ॥
तस्या मध्ये प्रतिष्ठाप्यः कुम्भो हैमोऽथ राजतः ।
ताम्रको मृन्मयो वापि पूर्वालाभे परः परः ॥
अकालमूलः सोऽव्यङ्गो जलपूर्णः स्वलंकृतः ।
मणिरत्नप्रवालैश्च स्वर्णरूप्येण गर्भितः ॥
प्रतिष्ठा (प्या?प्यो) क्षतैः पुष्पफलबीजसमन्वितः ।
श्वेतेन चन्दनेनैनमर्चयित्वा समन्ततः ॥
तस्योपरिष्टाद् विन्यस्येत् क्षीरवृक्षस्य पल्लवम् ।
सुगन्धिनाथ धूपेन धूपयित्वा चतुर्दिशम् ॥
वेष्टयेदहतेनैनं शुक्लवस्त्रेण सर्वतः ।
वास्तुमध्ये यतो ब्रह्मा कुम्भरू (पं?पः) स तिष्ठति ॥
कुम्भस्योत्तरभागे तु कीलकान् स्थापयेद् बुधः ।
कीलानष्टौ परीक्षेत स्थापयेच्च यथाविधि ॥
श्वेतचन्दनलिप्तांस्तान् श्वेतपुष्पैर्विभूषयेत् ।
सालक्तकान् सुरभिणा धूपेन च सुधूपितान् ॥
ऊर्णामयेन सूत्रेण त्रिवर्णेनाभिवेष्टयेत् ।
मधुसर्पिर्दधिक्षीरैर्मूलभागे लेपयेत् ॥

अर्चयेत् परशुं सूत्रमष्टीलादीनि सर्वतः।
अथोपकरणान्यत्र धूपपुष्पाक्षतादिभिः॥
ततः पूर्वोत्तरे वास्तोर्भागे महार्चिषः पदे।
गोमयेन समालिप्ते कुशास्तरणमास्थितः॥
अग्निकार्यं प्रकुर्वीत पुरोधाः शान्तिमेव च।
सांवत्सरः शुचिः स्नातः कृतस्नानः (?) समाहितः॥
शङ्कुना साधयेल्लग्नं सम्यक् तद्घटिकाथवा (?)।
रात्रिलग्नं तु नक्षत्रैर्मध्यास्तोदयसंश्रितैः॥
एवं संसाधयेल्लग्नं यदीच्छेत् सिद्धिमात्मनः।

स्थपत्यादीनां पूजनम्

पूजया तुष्टिकारिण्या पूजयेच्च पुरोहितम्॥
अभ्यर्चिते यतस्तस्मिन् ब्रह्मा भवति पूजितः।
सांवत्सरस्य कर्तव्या ततः पूजा यथाविधि॥
सांवत्सरेऽर्चिते यस्मात् पूजितः स्याद् बृहस्पतिः।
स्थपतिं पूजयेत् पश्चात् त्वष्टृतुष्टिचिकीर्षया॥
तदधीनं यतः कर्म शुभं वा यदि वाशुभम्।
श्वेतचन्दनदिग्धांस्तान् श्वेतपुष्पैश्च पूजितान्॥
सदशैरहतैर्वस्त्रैरङ्गुलीयैः प्रपूजयेत्।
परिकर्मकरा ये च तान् यथाशक्ति पूजयेत्॥
हेम्ना वस्त्रादिदानैश्च वाग्भिर्वा परितोषयेत्।
यथा सुमनसस्ते स्युस्तथा कर्तव्यमादरात्॥

बलिकर्म

ततः स्थपतिराचम्य बलिकर्म समाचरेत्।
सूत्रपाते बलिं धीमान् सार्वभौतिकमाचरेत्॥
तस्यालाभे बलिः कार्यो यो भवेत् सोऽभिधीयते।
विदधीत च श्वेतरक्तपीतासितान् पृथक्॥
पायसं कृसरं क्षीरं निष्पावान् श्वेतमोदनम्।
पालिकादधिरूपांश्च पललोल्लापिकावृतम्॥
दध्योदनं च संमिश्रं देवताभ्यो निवेदयेत्।
तिलचूर्णेन सहितैर्दैवमग्निं च पूजयेत्॥
ततश्च पायसं दत्त्वा ब्रह्मस्थाने निवेदयेत्।
ततश्चानुक्रमेणैव देवताभ्यो बलिं हरेत्॥
बलिकर्म यथान्यायं कृत्वा च द्विजवाचनम्।
स्वशाखीयान् शुचीन् प्राज्ञान् पूजयेद् दक्षिणाफलैः॥
ओङ्कारस्वस्तिपुण्याहैर्गीतवादित्रनिस्वनैः ।
ततो विप्रैः सह स्वामी कुर्यात् तस्य प्रदक्षिणम्॥
अक्षतान् प्रथमं कुम्भे दापयित्वा द्विजोत्तमैः।

ततो दक्षिणपूर्वेण गत्वा पुण्याहवाचकैः ॥
अहताम्बरसंवीतः शुचिः स्थपतिरासने ।
शङ्कु-ताडनम्
निषद्य प्राङ्मुखः शङ्कुं धृत्वा दक्षिणपाणिना ॥
पश्चादादाय वामेन प्रतिष्ठाप्य च भूतले ।
मन्त्रानमूल् जपन् वीरो हन्यात् परशुना ततः ॥
विशन्तु ते तलं नागा लोकपालास्तथैव च ।
प्रतिष्ठन्तु गृहे चास्मिन्नायुर्बलकरं भवेत् ॥
प्रहारान् सुस्थिरानष्टौ दद्यात् कीलस्य मूर्धनि ।
हन्यमाने ततः कीले निमित्तान्युपलक्षयेत् ॥
गोविप्ररथनागाख्याः कन्या नृपवरस्त्रियः ।
शङ्खदुन्दुभिवंशानां तथा गीतस्य च ध्वनिः ॥
आविर्भवति यद्यस्मिन् हन्यमाने प्रभुस्तदा ।
सततं सुखमाप्नोति शान्त्यैश्वर्यैश्च वर्धते ॥
हतं क्षतं विपन्नं वा निषेधः सूत्रकीलयोः ।
पाषण्डिनां च सर्वेषां दर्शनं न सुखावहम् ॥
दृष्ट्वा शुभनिमित्तानि ततः शङ्कुं निवेशयेत् ।
हन्यमानो यदा कीलो विशेद् भूमौ शनैः शनैः ॥
कर्मसिद्धिर्भवेत् तत्र गृहं रत्नपरिच्छदम् ।
हन्यमानोऽपि न विशेद् धरित्रीं कीलको यदा ॥
न तत्र कर्मसिद्धिः स्यादनिमित्तं च लक्षयेत् ।
एकेनापि प्रहारेण यत्र कीलो विशेन्महीम् ॥
न सिद्धिं याति तत्रौकः कृतं वा नोपभुज्यते ।
आयस्याष्ठीलया हन्यान्न काष्ठेन कथञ्चन ॥
काष्ठेन ताडितः कीलो वह्निदोषकरो भवेत् ।
अश्मना यदि ताड्येत तदा व्याधिं प्रयच्छति ॥
ऐन्द्रीं प्रतिनतः कीलो धनसम्मानकारकः ।
आग्नेय्यां प्रणते कीले भवत्यग्निभयं महत् ॥
याम्यायां मरणं राज्ञां दिशि राक्षसतो भयम् ।
धननाशस्तु वारुण्यां वायव्यां रोगतो भयम् ॥
सौम्यं सौम्यानते राजप्रसादायेशतो गतः ।
कीलके कूर्चके जाते पुत्रपौत्रान्वयैर्गृहे ॥
परमामृद्धिमाप्नोति धनधान्यैश्च वर्धते ।
हन्यमानो यदा यत्नात् कीलः कश्चिदपि स्फुटेत् ॥
नाशं विद्यात् तस्य पत्न्या ज्येष्ठस्य तनयस्य वा ।
यदि भज्येत कीलः स्यात् स्वामिनो जायते वधः ॥

यदा कीलः पतेद्धस्ताद् भ्रंशः स्यात् स्थपतेस्तदा ।
हस्तभ्रष्टश्च (?) स भवेदष्टीले हस्तविच्युते ॥
सुखेन हन्यमानश्चेत् कीलः स्वस्थो न जायते ।
अष्टौ प्रहारानपरांस्तस्य दद्यात् तदा पुनः ॥
स्रग्गन्धधूपोपहारैः कुर्याच्च परिषेचनम् ।
इदं साम महापुण्यं परिचिन्त्य समासतः ॥
त्रैशोकं तु जपेद् विद्वान् यावच्छङ्कभिषेचनम् ।
गत्वाथ नैऋतीमाशां ततः शङ्कुं निवेशयेत् ॥
ऊर्णायवेन साम्नास्य सम्यक् स्नपनमाचरेत् ।
वायोर्दिशं ततो गत्वा तत्र शङ्कुं निवेशयेत् ॥
अभिषेकं महारत्नसाम्ना तस्य समाचरेत् ।
अथैशानीं दिशं गत्वा शङ्कुं तस्यां निवेशयेत् ।
भोग्रेण साम्ना कुर्वीत प्राग्वत् तस्याभिषेचनम् ।
ततोऽनुसूत्रं बध्नीयात् सव्यं द्विगुणवेष्टितम् ।
प्रदक्षिणं प्रसार्यैतदुक्तः शङ्कुक्रमो यथा ।
(म?ब) ध्यमानं यदा सूत्रं शङ्कुः किमपि मुञ्चते ॥
तदा पुत्रवधं विद्याच्छिन्नं स्वस्वामिमृत्यवे ।
तस्माद् यत्नः प्रकर्तव्यो यावत् सूत्रं प्रसार्यते ॥
चतुर्णामपि बाहूनां पोषं (?) छिन्नं न दुष्यति ।
सूत्रं प्रसार्य वितरेच्चरून् पूर्वं प्रकल्पितान् ॥
स्वेषु स्वेषु ततःस्थानेष्वनेन विधिना बुधः ।
शङ्कुस्थानेषु दातव्याः सिताद्याश्चरवः क्रमात् ॥
प्राग्दक्षिणस्य विदिशो मन्त्रं चेमं हृदा जपेत् ।
मारुतानां च सर्वेषां मानवानां तथैव च ॥
बलिं तेषु प्रयच्छामि मन्त्रेण परिमन्त्रितम् ।
रक्तं बलिमुपादाय नैऋत्यभिमुखस्तथा ॥
नैऋत्यधिपतिश्चैव नैऋत्यां ये च राक्षसाः ।
बलिं तेषु प्रयच्छामि रक्तमोदनमुत्तमम् ॥
कृष्णं बलिमुपादाय गत्वा च दिशमानिलीम् ।
नमस्ते नागराजाय ये चान्ये तं समाश्रिताः ॥
बलिं तेषु प्रयच्छामि कृष्णमोदनमुत्तमम् ।
बलिमुद्धृत्य हारिद्रमैशानीमाश्रयन् दिशम् ॥
यमो रुद्रेषु सर्वेषु ये चान्ये तान् समाश्रिताः ।
प्रयच्छामि बलिं तेषां हारिद्रौदनमुत्तमम् ॥
एवमेतान् बलीन् सर्वान् यथावत् प्रतिपादयेत् ।

ततः कुम्भोदकं पुण्यं साम्ना दिव्येन मन्त्रयेत् ॥
वामदेव्येन कुर्वीत प्रोक्षणं तेन वास्तुतः ।
द्रुमा विप्रादीनामिति निगदिताः शङ्कुघटने ,
फलं यच्छङ्कोश्च स्फुटमिह निमित्तानि बहुशः ।
तथा सूत्राताने विधिरनु च मन्त्रैः प्रतिदिशं
बलिः कीलेपूक्तस्त्रिदशपरितोषाय विधिवत् ॥

(द) बलिदानविधिलक्षणम्

स० सू०	इदानीमभिधास्यामो बलिरूपविधेः क्रमम् ।
मण्डलकरणम्	येन येनार्चिता देवास्तुष्यन्ति समहेश्वराः ॥
कलशन्यसनञ्च	मण्डलं वास्तुनो मध्ये गोमयेन प्रकल्पयेत् ।
३६. १–२	कलशं तत्र विन्यस्येत् सप्रसूनं सकाञ्चनम् ॥
वास्तुदेवता-कल्पनम्	वास्तुदेवास्ततः कल्प्या यथास्थाननियोगतः ।
अर्घ्य-निवेदनं च	सधूपैर्विविधैमाल्यैरर्घ्यं पश्चान्निवेदयेत् ॥
३६. ३	अर्चयेद् विश्वकर्माणं माल्यैर्धूपैर्विलेपनैः ।
विश्वकर्मणोवास्तु-	भक्ष्यैः फलैर्बहुविधैः पूजयेत् सुसमाहितः ॥
देवानां च पूजा-	आज्येन पयसा दध्ना पूजयेच्छिखिनं पुनः ।
विधिः ३६. ४–२६	शालिगोधूममुद्गाद्यैर्धान्यैः पर्जन्यमर्चयेत् ॥

जयन्तं पूजयेदाम्रद्राक्षाखर्जूरिकादिभिः ।
मालतीमल्लिकाभिश्च पूजयेत् त्रिदशाधिपम् ॥
पुष्पै रक्तैस्तथा धूपै रक्तचन्दनलेपनैः ।
ततः सूर्यं जगन्नाथं पूजयेल्लोकचक्षुषम् ॥
जम्बीरैर्बीजपूरैश्च नारङ्गैः पीतकैः फलैः ।
पूजयेत् सत्यनामानं देवं तेन स तुष्यति ॥
मत्स्यमांसैश्च तुष्यन्ति सर्वे रक्षःपुरोगमाः ।
सितैः फलैर्नारिकेलैर्भृशश्च परितुष्यति ॥
गन्धैर्धूपप्रयोगैश्च नभोनामानमर्चयेत् ।
पुष्पैः सुगन्धिभिः शुक्लैर्मारुतः परितुष्यति ॥
कृसरं मधुसंयुक्तं पूष्णे भक्त्या निवेदयेत् ।
वितथं तु शुभैरन्यैर्मद्यमांसविवर्जितैः ॥
पूजितस्तुष्टिमायाति विवस्वांश्च महामुनिः ।
पुष्पैः सपुष्पकैस्तुष्टिमवाप्नोति गृहक्षतः ॥
मत्स्यमांसयुतैर्भक्ष्यैर्यमतुष्टिः सदा भवेत् ।
पुन्नागागुरुधूपेन गन्धर्वानार्चयेद् बुधः ॥
मृगमांसयुतैर्भक्षैर्भृङ्गराजं च तर्पयेत् ।

राजजम्बूफलैर्बिल्वैर्देवमध्यर्चयेन्मृगम् ॥
पायसैर्मधुसंयुक्तैर्मांसैर्भक्तैश्च शोभनैः ।
कर्पूरसुरभिद्रव्यगर्भैः संपूजयेत् पितॄन् ॥
सपुष्पैर्मोदकैर्लाजैः पललैश्च विमिश्रितैः ।
दौवारिकं प्रयत्नेन पूजयेद् विघ्नकारकम् ॥
अपूपैः शोभनैर्गन्धैर्धूपैर्माल्यैरनुत्तमैः ।
पुष्पैः कण्टकजातीनां सुग्रीवं पुजयेत् सदा ॥
सपुष्पैर्ला(प?ज)कैर्भक्ष्यैर्दधियुक्तान्नपायसैः ।
अर्चयेत् पुष्पदन्तं तु यशोवीर्यान्वितं सुरम् ॥
मांसैश्च सूकरादीनां वैनतेयं सदार्चयेत् ।
वरुणं च महासत्त्वं पूजयेद् धूपचन्दनैः ॥
राहुं च मांससंयुक्तैस्तर्पयेद् भक्ष्यभोजनैः ।
रुधिरेण प्रदत्तेन तुष्टिमेति शनैश्चरः ॥
मांसेन तु क्षयस्तुष्टिं रोगाणामधिपो व्रजेत् ।
मेदसा पूजयेद् रोगं सर्वलोकभयङ्करम् ॥
वासुकिं क्षीरदानेन पूजयेत् सततं नरः ।
पूर्ववत् पूजयेद् देवं विश्वकर्माणमीश्वरम् ॥
सितप्रसूनविन्यासैर्भल्लाटं पूजयेद् बुधः ।
दधियुक्तेन चान्नेन सोमं सर्वत्र पूजयेत् ॥
कुबेरं धूपदानेन पूजयेत् सततं नरः ।
अदितिं च सुवर्णेन पुनरपि च पूजयेत् ॥
अर्कमन्दारमालाभिर्वृषभं च समर्चयेत् ।
अन्येषामपि देवानामर्चनं धूपसाम्प्रतैः (?) ॥
सर्वपुष्पफलैश्चैषां कार्यं बुद्धिमता सदा ।
इत्येते बलयः सर्वे शान्त्यर्थं परिकल्पिताः ॥

शान्तिबलिकर्मार्हाणि वास्त्वादीनि ३६. २७-२८॥

शोधने कर्षणे भूमेः साधने रूपकल्पने ।
गृहे प्रवेशने रम्ये तिथिमभ्युदयेषु च (?) ॥
स्कन्धावारनिवेशेषु पुरग्रामनिवेशने ।
देवालयक्षितिपवेश्मनिवेशनेषु प्रोक्तान् बलीन् प्रवितरेत् प्रयतः सुरेभ्यः।
प्रारम्भमन्यमपि वास्तुगतं चिकीर्षुः कुर्वन्निमं विधिमभीप्सितभाजनं स्यात्

(य) शिलान्यास-लक्षणम्

स० सू० विहितायनपक्ष-तिथिनक्षत्रादिः ३५. १-५

अथ ब्रूमः शिलान्यासविधिमत्र यथागमम् ।
तथोदगयने पुण्ये शुक्लपक्षे शुभेऽहनि ॥
स्थिरग्रहस्य दिवसे करणे च गुणान्विते ।
तिष्येऽश्विनीषु रोहिण्यामुत्तरेष्वपि च त्रिषु ॥

रेवत्यां श्रवणे हस्ते शिलाविन्यासमाचरेत् ।
स्थिरस्य राशेरुदये सौम्यमित्रावलोकिते ॥
सम्यङ्निमित्तशकुनस्वस्तिपुण्याहवार्चिते ।
हर्षोदये च मनसः कुर्याद् वास्तोर्निवेशनम् ॥
भद्रः प्रकृत्या शास्त्रज्ञः शुभः स्नातः समाहितः ।
कर्मारभेत स्थपतिः कृतदेवार्चनक्रियः ॥

प्रथमेष्टिका-लक्षणम् ३९. ६–८

पूर्णां समामविकलां चतुरश्रामनिन्दिताम् ।
शिलामाद्यां चये साध्वीं परीक्षेत विचक्षणः ॥
कुम्भाङ्कुशध्वजच्छत्रमत्स्यचामरतोरणैः ।
दूर्वानागफलोष्णीषपुष्पस्वस्तिकवेदिभिः ॥
नन्द्यावर्तैः सचमरैः कूर्मपद्मनिशाकरैः ।
वज्रैः प्रशस्तैः प्राकारैर्भूषिताः कर्मणो हिताः ॥

वर्जनीयाः शिलाः ३९. ९–१०॥

दीर्घा ह्रस्वाल्पविषमाच्छाभध्मातापरीक्षिता ।
दिङ्मूढा चाङ्गहीना च सास्थ्यङ्गारा सशर्करा ।
खण्डा दुःपक्वनिर्भिन्ना कृष्णा दोषभयावहा ।
नृणां पशुतुरङ्गाणां पदाङ्काः स्वस्तिवृद्धये ॥
ऋव्यान्मृगविहङ्गानां पादैः स्पृष्टास्तु वर्जयेत् ।

नन्दादिकाश्चतस्रः शिलास्तद्देवता वेदीकल्पनञ्च ३९. १०–१३

नन्दाभद्राजयापूर्णाश्चतस्रः स्युरिमाः शिलाः ॥
वाशिष्ठी काश्यपी तद्वद् भार्गव्याङ्गिरसीति ताः ।
तत्र प्रागुत्तरे देशे संनिवेशस्य वास्तुनः ॥
नैर्ऋत्यां वा सकुसुमां समां गोचर्मसम्मिताम् ।
वेदीं सगन्धकलशां चतुरश्रां प्रकल्पयेत् ।

नन्दाप्रतिष्ठापन-विधिः ३९. १४–२९

आग्नेय्यामादितो नन्दां स्थापयेत् क्रमशः शिलाम् ।
अकालमूलैरव्यङ्गैः सपद्मोत्पलपल्लवैः ॥
सर्वौषधिहिरण्याद्यैर्हैमराजतमृन्मयैः ।
कुम्भैस्ताम्रमयैश्चापि मन्त्रैस्तामभिषेचयेत् ॥
तीर्थप्रस्रवणाम्भोभिः सरलाक्षतपङ्कजैः ।
सुगन्धिभिः सपुण्याहमभिषेकं प्रयोजयेत् ॥
जाह्नवीयमुनारेवासरस्वत्यादिसम्भ(वैः?वम्) ।
महानदीजलं शस्तं शुभतीर्थभवं तथा ॥
तथाद्रिवनदेशान्तदेवायतनानि च ।
अभिषेकार्थमम्भांसि यथालाभमुपाहरेत् ॥
मन्त्रेणानेन चैतासामभिषेकं समाचरेत् ।
हिरण्यवर्णाः पावन्यः शुभयो दुरितच्छिदः ॥
पुनन्तु शान्ताः श्रीमत्य आपो युष्मानमयुच्युतः ।

मन्त्रपूतेन पयसा स्नापयित्वा ततः शिलाम् ॥
स्थपतिर्गन्धकल्केन मङ्गल्येनानुलेपयेत् ।
हिमचन्दनपूर्णेन व्यवकीर्य सुगन्धिना ॥
तरसा छादयेदेनां सलाजैः पुष्पदामभिः ।
धूपमाल्योपहारैश्च दधिमांसाक्षतादिभिः ॥
पूजयेदिष्टकां देवीं वस्त्रयुग्मैश्च पुष्कलैः ।
निवेशनान्ते नैरृत्यां तदा विप्रानवस्थितान् ॥
समस्त्वयाज्ञ शुचीन् प्राज्ञानर्चयेद्दक्षिणाफलैः ।
ओङ्कारस्वस्तिपुण्याहगीतवादित्रनिस्वनैः ॥
कर्ता जनितरोमाञ्चस्तेभ्यः कुर्यान्नमस्क्रियाम् ।
निवेद्य वास्तोष्पतये भूतेभ्यश्च ततो बलिम् ॥

उपशिलान्यसनम्
३५. २६

तासां चतसृणामन्याः कुर्यादुपशिलाः पृथक् ।
प्राकारस्वस्तिकाङ्के द्वे तथा श्रीवत्सलक्षणा ॥

शिलाङ्काः प्रतिष्ठापनमन्त्रादिकञ्च
३५. २७-४३

नन्द्यावर्तस्तु पूर्णायां भवे (देको?दङ्को) यथाक्रमम् ।
कर्णे प्राग्दक्षिणे नन्दां वास्तुनः स्थापयेदधः ॥
अन्याः क्रमेण भद्राद्याः कोणेष्वन्येषु च त्रिषु ।
प्रतिष्ठापनमन्त्राश्च तासां चतसृणामपि ॥
चत्वार ऋषिभिर्गीताः शाश्वतारम्भदर्शनाः ।
वीर्येणादिवराहस्य वेदार्थैस्त्वभिमन्त्रि (ताः?ताम्) ॥
वसिष्ठनन्दिनीं नन्दां प्राक् प्रतिष्ठापयाम्यहम् ।
सुमुहूर्ते सुदिवसे सा त्वं नन्दे! निवेशिता ॥
आयुः कारयितुर्दीर्घं श्रियं चाश्यामिहावह ।
भद्रासि सर्वतोभद्रा भद्रे! भद्रं विधीयताम् ॥
कश्यपस्य प्रियसुते! श्रीरस्तु गृहमेधिनः ।
जये! विजयतां स्वामी गृहस्यास्य महात्मनः ॥
आचन्द्रार्कं यशश्चास्य भूम्यामिह विरोहतु ।
त्वयि सम्पूर्णचन्द्राभे! न्यस्तायां वास्तुनस्तले ॥
भवत्येष गृहस्वामी पूर्णे । पूर्णमनोरथः ।
इति मूलच (यो?यं) मन्त्रैः कुर्यात् स्वस्तिकवाचनैः ॥
ताभिर्हिरण्यवर्णाभिः शिलाभिः सममद्भुतम् ।
प्रागुदक्प्लवना धन्या न प्रत्यग्दक्षिणाप्लवा ॥
इष्टकाश्चैत्यभवनप्राकारपरकर्मसु ।
विताने चितिविन्यासे चतुर्मुखनिकेतने ॥
पुरोधाः शान्तिवेदीषु प्रतिमास्थापनेषु च ।
याज्ञिकेन विधानेन क्रमशः स्थापयेच्छिलाः ॥

ऐशोकौण्यासभा (सैर्व्यै) स्ताः सामभिः स महाप्रतैः।
गायत्र्युष्णिगनुष्टुब्भिर्बृहत्या च यथाक्रमम्॥
चयान् समस्तांश्चिनुयाच्चतुरो विरमेत् ततः।
ज्ञात्वा भित्तिप्रमाणं च चितेश्चयचतुष्टयम्॥
समाण्यमादिकमेवं कनिष्ठं च यथोत्तरम्।
प्रतिष्ठितास्ताः प्रथमं भूतले सुस्थिताः समाः॥
न चालयेच्चालने स्याद् गृहभर्तुर्महद् भयम्।
कम्पने च भयं विद्यादेतासां स्थिरतां पुनः॥
स्थपतेर्गृहभर्तुश्च मङ्गलं परमं विदुः।
प्राग्दक्षिणायां चलने गृहभर्तुर्महद् भयम्॥
भार्याविनाशो नैर्ऋत्यां शून्यं (?) भीतिर्मरुद्दिशि।
गुरोश्च भयमैशान्यामपचारेऽपि तद् भवेत्॥
प्रथमं स्थापि (तेनै?ताने) वं स्तम्भानपि न चालयेत्।
नोद्धरेत प्रगृह्याद्य विधिस्तुल्यो यतोऽनयोः॥
विन्यासं प्रथमं तस्मात् कुर्यात् सम्यक् समाहितः।
शिलानां स्थपतिस्तद्वत् स्तम्भानामपि सर्वथा॥
द्वारप्राकारशालानां नगराणां च वेश्मनाम्।
तत्प्रमाणो विधिर्यस्मात् तस्मात् तत्रादृतो भवेत्॥

(र) द्रव्यसंग्रहलक्षणम्

निर्माणद्रव्योपोद्घातः	सर्वनिर्माणकार्याणां द्रव्यमाद्यस्तथा मतः।
वि० व० ४. १	तस्मात्संपादयेद्विद्वान्सद्द्रव्यं शुभवर्धनम्॥
द्रव्यं द्विविधम्	धनवस्तुप्रभेदेन तद्द्रव्यं द्विविधं स्मृतम्।
४. २-३	धनेन मानयेद्भृत्यान् शुभवाक्यैश्च नित्यशः॥
	इष्टिका च सुधा श्लक्ष्णा पारिभद्रादिदारवः।
	अयःकीलादयश्चान्ये वस्तुसंज्ञा उदीरिताः॥
द्रव्यसंग्रहकालः	दारुसङ्ग्रहणं शस्तं शुभकाले विशेषतः।
वनप्रवेशमांगलिकञ्च	स्वगुरुं स्थपतिं धेनुं श्रोत्रियान्वेदपारगान्॥
४. ४-७	पूजयित्वा विशेषेण दारुसङ्ग्रहणे रतः।
	दिक्पालानायुधाधीशानर्चयेद्गन्धपुष्पकैः ॥
	सह मङ्गलघोषेण काननं प्रविशेद्बुधः
	शुद्धः शान्तमना भूत्वा नववस्त्रोत्तरीयकः॥
	देवानामपि देवीनां ध्वजस्तम्भाय दारुकान्।
	आहरेन्मन्त्रघोषेण सर्वलोकहितप्रदान्॥
प्रशस्ताः देववृक्षाः	बकुलस्तिनिशस्सालः कोविदारश्च केसरः।
४. ८-१४	श्रीपर्णस्सप्तपर्णश्च कुद्दालः पिण्डकस्तथा॥

देवालयेष्विमे शस्ताश्शुभदाः संप्रकीर्तिताः ।
भल्लाटस्य मृगस्यापि मित्रस्य वरुणस्य च ॥
जयन्तस्य च पूष्णश्च गन्धर्वस्य च शूलिनः ।
वास्तुनाथस्य देवस्य देवीनां च विशेषतः ।
अंशभूता इमे वृक्षाः शास्त्रविद्भिरुदीरिताः ॥

प्रशस्ताः मानववृक्षाः
४. ११-१४

आम्रातको मधूकश्च नागरङ्गश्च तिन्दुकः ।
खदिरः पूतिको वेणुः पाटलश्च विभीतकः ॥
कर्णिकारश्च सरलः कर्कन्धूस्तिनिशस्तथा ।
काश्मरी च रसालश्च पारिभद्रश्च केसरः ॥
श्रीपर्णस्तिलकश्चापि नक्तमालश्च भद्रकः ।
अन्ये च क्षीरवृक्षा ये निम्बाद्याश्च सुगन्धिनः ॥
नृणामालययोग्यास्स्युश्शुभदाः संप्रकीर्तिताः ।
मनुष्यवास्तुभूमीशा धनपालादयश्शुभाः ॥

तेषां शिल्पकार्य-
प्राशस्त्यम्
४. १५-१७

गवाक्षस्थूलडोलानां तिर्यग्दारुकलापिनाम् ।
सोपानानाञ्च खट्वानां प्रतिमानां निवेशिनाम् ॥
पीठानां फलकानां च स्तम्भानां च शिखण्डिनाम् ।
वर्तुलानां पूतिकानां तन्तुवाजिककुम्भिनाम् ॥
उपपीठादिनां सिह्मवक्त्रादीनां च मेशिनाम् ।
अन्येषां शिल्पकार्याणाममी शस्ताः प्रकीर्तिताः ॥

अन्येषां वृक्षाणां
प्राशस्त्याप्राशस्त्ये
४. १८-२३

मधूकं तिनिशं पूतिमन्यं क्षीरतरुं तथा ।
तिर्यग्दारौ चित्रकार्ये योजयेन्न कदाचन ।
नाडीवृक्षाः पिन्नवृक्षाः गुलिकाभिन्नदारवः ।
गजदन्तप्रभिन्नाश्च वक्रा भिन्नास्तथा वने ॥
पक्षिहीना दिवाभीतैरुषिताश्च (द्विजाधमैः) ।
विद्युता भिन्नवृक्षाश्च योधानामिषुभिर्हताः ॥
कण्टकावृतदेहाश्च न प्रशस्ताः प्रकीर्तिताः ।
उदीच्यां शयिता वृक्षाः देवालयशुभप्रदाः ॥
ऐन्द्र्यां दिश्यथ वारुण्यामुदीच्यां वा विशेषतः ।
शयिताः पातिता वृक्षाः प्रशस्ता मानुषालये ॥
पतिता दक्षिणाशायां तथा प्रेतवनं गताः ।
दुष्टभूमिस्थिता वृक्षा वर्ज्या निन्द्याश्शुभेप्सुभिः ॥

वृक्षच्छेदनविधिः
४. २४-२७

नागाधिपं वृक्षपतिं पयसा पायसेन च ।
तर्पयित्वा विशेषेण वने छिन्द्याद्बुधोत्तमः ॥
काले शुभे स्वस्तिघोषैः खण्डितांस्तान्वनान्तरात् ।
शुभ्रवर्णैर्हेमश्रृङ्गैर्वृषभैर्वाहयेद् बुधः ॥

स्थापयेच्छुद्धदेशे तानधिवासाय निश्चितः।
संवत्सरो (रं) वा षण्मासान् मासत्रयमथापि वा॥
अधिवासाय तान्यस्य माल्यगन्धार्चनादिभिः॥
रक्षणं कारयेद्धीमान्वास्तुशास्त्रविशारदः।

स० सू०
द्रव्यानयनवन-
प्रवेश-कालादिः
१६. १–३॥

प्रागेवोदगवापि गेहार्थे द्रव्यं विधिवदानयेत्।
गन्तव्यमेव धिष्ण्येषु मृदुक्षिप्रचरेषु च॥
उपवास्यं च तेष्वेवच्छेद्यं भेद्यं च दारुणैः।
प्रवेशनं स्थिरैः कार्यमारम्भः शस्यते चरैः॥
गत्वा शुभे शुचौ देशे निवेशं कारयेत् ततः।
तस्मिन्निवेश्य कर्मान्तमन्नपानेन तर्पयेत्॥
पुष्टतुष्टपरीवारः क्षपायां समुपोषितः।

वृक्षपरीक्षायां—
वर्जनीयवृक्षाः
१६. ३॥–६

गृहयोग्यं परीक्षेत न्यस्तशस्त्रस्ततोऽङ्घ्रिपम्॥
पुरश्मशानग्रामाध्वहृदचैत्याश्रमोद्भवान् ।
क्षेत्रोपवनसीमान्तर्विषमस्थलनिम्नजान् ॥
कट्वम्लतिक्तलवणास्ववनीषु तथोद्गतान्।
श्वभ्रावृतान् स्थिरोर्वीषु सम्भूतांश्च त्यजेद् द्रुमान्॥

तेषां वर्णस्नेह-
त्वगादिविचारो
वयनिर्धारणञ्च
१६. ७–९

सम्यक् संलक्ष्य वृक्षाणां वर्णस्नेहत्वगादिकम्।
विजानीयाद् वयस्तेषां बालान् वृद्धांश्च सन्त्यजेत्॥
शतानि त्रीणि वर्षाणां सारद्रुमवयः स्मृतम्।
गृह्णीयाद् षोडशादूर्ध्वं सार्धवर्षशतावधेः॥
वयसः परिणामेन निर्वीर्यत्वं यथा नृणाम्।
प्रोक्तं तद्वद् द्रुमाणां च स्यात् तथा छिद्रपत्रता॥

अन्य वर्ज्यवृक्षाः
१६. १०–१४

भङ्गुराः सुषिरास्ते स्युः सकोलाक्षाः खरत्वचः।
तस्मादिमांस्त्यजेद् वृक्षांस्तथा चैवोर्ध्वशोषिणः॥
वक्रान् रूक्षानवप्लुष्टान् दुःस्थितानपि च द्रुमान्।
वर्जयेद् भग्नशाखांश्च ह्येकशाखान्वितांस्तथा॥
अन्यैरधिष्ठितान् विद्युत्पातवातसरित्क्षतान्।
ग्रन्थिनिर्युक्तदानांश्च भ्रमराहिकृताश्रयान्॥
संसृष्टानेकतो भ्रष्टान् मधुभिर्वलिभिर्वृतान्।
मांसामेध्याशनैस्तद्वद् दूषितानपि पक्षिभिः॥
लूतातन्त्वावृतान् वन्यसत्वोद्घृष्टान् गजक्षतान्।
वुध्नतोऽतिबृहत्स्कन्धांश्चिह्नभूतांस्तथाध्वनः ॥
अकाले पुष्पफलिनो रोगैरपि च पीडितान्।
वासभूतानुलूकानां त्यजेदन्यानपीदृशान्॥

गृहकर्महिताः वृक्षाः
१६. १६–१८

खदिरो बीजकः सालो मधूकः शाकशिंश (पौ?पे)।
सर्जार्जुनाञ्जनाशोकाः कदरो रोहिणीतरुः॥
विकङ्कतो देवदारुः श्रीपर्णीपादपस्तथा।
कुटुम्बिनाममी प्रोक्ताः पुष्टिदा जीवदास्तथा।
वृक्षाणां लक्ष्यते येषां भारवारिसहिष्णुता।
ते यथायोग्यमन्येऽपि शस्यन्ते गृहकर्मणि॥

अहिताश्च
१६. १९–२१

कर्णिकारधवप्लक्षकपित्थविषमच्छदाः।
शिरीषोदुम्बराश्वत्थशेलुन्यग्रोधचम्पकाः।
निम्बाम्रकोविदाराश्चाग्न्याधिघाताश्च गर्हिताः।
गृहकर्मणि नेष्टास्ते यतस्तेऽनिष्टदायिनः॥
नेष्टाः कण्टकिनः स्वादुफलाः क्षीरद्रुमाश्च ये।
सुगन्धयश्च ये तद्वद् ध्रुवं तेषु पशुक्षयः॥

वृक्ष-नक्षत्रादिज्ञानम्
१६, २२–२३॥

सत्वप्रमाणच्छाया तु नियतं दृश्यते यदा।
द्रुमच्छाया तदा ग्राह्या तत्प्रमाणस्तु स द्रुमः॥
नक्षत्रं लक्षयेद् वृक्षे पूर्वस्यां दिशि तत्स्थितेः।
स्याद् भस्याद्यक्षरं यस्य तत्र जातं तमादिशेत्॥
क्षेम्यं तं स्वामिनो वृक्षं ज्ञात्वा साधकमेव च।

वृक्षच्छेदनविधिः
तत्राशुभशुभवि-
लोकनञ्च
१६. २४–४२

अग्रन्थिकोटरं स्निग्धमृजुं सारसमन्वितम्॥
पीनस्कन्धं हरित्पत्रं वृत्तं चाभ्यर्च्य पादपम्।
द्विजान् सन्तर्प्य च स्वस्ति वाच्य च स्थपतिस्ततः॥
पक्वापक्वामिषैस्तद्वद् भूतभक्तैः सुरासवैः।
गन्धैश्च धूपमाल्यैश्च बलिं दद्यान्निशागमे॥
अपक्रामन्तु भूतानि यानि वृक्षाश्रितानि हि।
कल्पनं वर्तयिष्यामि क्रियतां वासपर्ययः॥
धन्यः शिवः पुष्टिकरः प्रजावृद्धिकरो भव।
स्वस्ति (ते?च) न्द्रानिलयमाः सूर्यरुद्रानलास्तथा॥
दिशो नद्यस्तथा शैलाः पान्तु त्वामृषिभिः सह।
जल्पेद् यो मानुषगिरा कम्पते वाभिमन्त्रितः॥
स त्याज्यः स्यात् तथा म्लानप्रवालकुसुमश्च यः।
ततो भास्करमालोक्य वृक्षं कृत्वा प्रदक्षिणम्॥
स्वस्तिवाक्येन विप्राणां छेत्ता स्थित्वोदगाननः।
प्राङ्मुखो वा तरुं छिन्द्याच्छस्त्रैः क्षौद्रार्द्रिताननैः॥
शाखिनश्छिद्यमानस्य जायते यद्यसृक्स्रुतिः।
कम्पनं वा ध्वनिर्वापि मृत्युः स्याद् गृहिणस्तदा॥
यद्वा दधिमधुक्षीरघृतानि स्रवति द्रुमः।

छिद्यमानस्तदा विद्याद् बन्धुव्याधीन् कुटुम्बिनः ॥
अतीव यस्य स्रवति श्यामः स्नेहान्वितो रसः ।
सुगन्धिः स्वल्पमधुरः कषायः स प्रशस्यते ॥
प्राच्यां शुभस्तरोः पात उदीच्यां कर्मसाधकः ।
याम्यप्रत्यङ्निपाते तु शान्तिं कृत्वा द्रुमं त्यजेत् ॥
ज्ञातितः स्यात् तदा भीतिर्यदान्यं मर्दयेत् पतन् ।
दूरं दलति यो मू (लं?ले) छिन्नो वा धरणीरुहः ॥
कूजत्यतीव वायुश्च स्मृतः सोऽथ शुभप्रदः ।
खरोष्ट्रयोः शृगालानां दर्शनं भुजगस्य वा ॥
छेदे स्यात् कर्मविघ्नाय निगडैर्बन्धनाय वा ।
हलचक्रपताकाब्जध्वजच्छत्रादिदर्शनम् ॥
श्रीवृक्षवर्धमानादिदर्शनं वा शुभप्रदम् ।
उत्क्षिप्यते यदिच्छेदात् तदर्द्धिः स्यात् कुटुम्बिनः ॥
सर्वतः परिहानिः स्याच्छिन्नश्चाक्षिप्यते यदि ।
एकवृक्षे यथोद्दिष्टलक्षणोत्क्षेपदर्शने ॥
शेषान् दोषविनिर्मुक्तान् पादपानुपलक्षयेत् ।
धीरस्तं कल्पयेत् सम्यगनुलोमार्जवं तरुम् ॥
छिन्द्याच्च शुभभागार्धदशभागाधिकं कृतम् ।
तुङ्गीसाद्यवमध्यश्च (?) सगर्भो धरणीरुहः ॥

वृक्ष-मण्डल-ज्ञानं मण्डलगतानां जन्तूनां च परिज्ञानम् १६, ४३-५१॥

ज्ञेयानि मण्डलान्यस्य त (क्षणोच्छे?क्षणे छे) दनेऽपि च ।
मञ्जिष्ठाभे विदुर्भेकं कपिलाभे च मूषकम् ॥
पीतभासि तथा गोधां सर्पं दीर्घसितायते ।
गुडच्छाये मधु भवेत् कृकलासस्तथारुणे ॥
गृहगोधा कपोताभे गौधेरो घृतमण्डभे ।
रसाञ्जनाभे शस्त्राभे कमलोत्पलभासि च ॥
धौतासियष्टिवर्णे च मण्डले जलमादिशेत् ।
आकारो यस्य सर्पस्य वर्णो वा संप्रदृश्यते ॥
तं सर्पगर्भितं वृक्षमादिशेदविचारयन् ।
तस्करेभ्यो भयं चौद्रे सलिले सलिलाद् भयम् ॥
विद्यात् सर्पे विषाद् भीतिं पाषाणे भयमग्नितः ।
अजाविगोमहिष्युष्ट्ररासभादिनिपीडितम् ।
गोधागौधेरमण्डूककृकलासैश्च गर्भिते ।
मूषके पुनरिच्छन्ति मरणं वास्तुवेदिनः ॥
अमुनैव वदन्त्यन्ये गृहपीडां मनीषिणः ।
क्षेमेण यद्यविघ्नः स्यादसङ्गश्चागमो यदि ॥

वनान्तरे तदा क्षेमं सुभिक्षं च समादिशेत् ॥
अर्घदानविधिना विधानविद् द्रव्यमागतमिहार्चयेद् गृही ।
प्रत्युपेतकुलिशायुधध्वजं द्रव्यमुज्ज्वलमुतावनीपतिः ॥

निर्माणीयेषु—

टि०—नैकविधानि भवनानि । आवासगृहेष्वेव साधारणजनोचितनिवासभवनानि, राजोचित-भवनानीति द्वौ वर्गौ प्रमुखौ परं सन्त्यनेके नाना भवन-निवेशा अपरेऽपि येषां सर्वेषां लक्ष्यं दातव्यमस्ति । अन्योऽपि विशेषः । प्रायेण विश्वकर्मप्रभृतिशिल्पशास्त्रेषु भवनलक्षणप्रस्तावनायां प्रथमं राजभवनमुपस्थाप्यते महताभिनिवेशेनोपवर्ण्यते च । नैतद् समीचीनम् । राजभवनन्तु उत्तरो विलासः प्रथमो विलासः जन-भवनं (शाल-भवनमित्यर्थः) । समराङ्गणकर्तुर्महतीयं मनीषा । अनया दिशा प्रथमं शाल-भवनं प्रस्तूयते, पुना राज-भवनं, ततः परं तत्रैव अन्यानि विशिष्टानि भवनानि ।

जननिवेशे –

भवनोत्पत्तिं तद्विकासं च प्रतिपादयतां भवनपर्यायाणां सूची यथा—

समराङ्गणे १८. ८–९

आवासः सदनं सद्म निकेतो मन्दिरं मतम् ।
संस्थानं निधनं धिष्ण्यं भवनं वसतिः क्षयः ॥
अगारं संश्रयो नीडं गेहं शरणमालयः ।
निलयो लयनं वेश्म गृहमोकः प्रतिश्रयः ॥

भवन-जन्मनि (शालभवनोत्पत्तौ वा) आख्यानम्—

स० सू० ९. १–३८

अथ प्राक्कथितादस्माद् भूतसर्गादनन्तरम् ।
प्रजासीदमरैः सार्धमियं पूर्णजनाकुला ॥
शोकव्याधिजरातङ्कविमुक्तास्त्रिदशा इव ।
पुराभवन् कृतयुगे पुमांसः स्थिरयौवनाः ॥
ते निकुञ्जेषु शैलानां नदीषु च सरस्सु च ।
वनेषु च विचित्रेषु चिक्रीडुर्दैवतैः सह ॥
हेलया ते समुत्पत्य कदाचिदमरैः सह ।
निरर्गलाः समासाद्य स्वर्विचेरुः सुरा इव ॥
चित्राम्बरावृताः सर्वे नानाभरणशालिनः ।
विमानाकृतयस्तेषामासन् कल्पद्रुमा द्रुमाः ॥
मनोज्ञाभिः सह स्त्रीभिर्विचित्राभर (णास्त्रि?णश्रि)यः ।
कल्पद्रुमेष्वकार्षुस्ते वासं क्रीडां च तेष्वथ ॥
क्षुत्तृड्दुःखोज्झिता सर्वे बभूवुरयुतायुषः ।
रत्नावदातदेहास्ते कदाचिद् भूरसाशिनः ॥

इतिप्रायास्तदासंस्ते स्वेच्छाहारविहारिणः ।
स्वीकारविग्रहच्छेदविशदीकृतचेतसः ॥
नास्मिन्नर्कस्तपत्युग्रं न वाति प्रबलोऽनिलः ।
नीहारच्छेदसुन्दर्यो निशाः पूर्णेन्दुभूषणाः ॥
भिन्नस्निग्धाञ्जनश्यामाः सतडिन्मन्द्रनिस्वनाः ।
अचण्डाशनयश्चासन् कवरीकान्तयो घनाः ॥
माद्यत्पिकवधूदष्टमाकन्दमुकुराङ्कुराः ।
आसन् सदापुष्पफलाभोगा येषां वनालयाः ॥
एकोऽग्रजन्मा वर्णोऽस्मिन् वेदोऽभूदेक एव च ।
ऋतुर्वसन्त एवैकः कुसुमायुधबान्धवः ॥
रूपश्रुतसुखैश्वर्यभाजस्ते निखिला अपि ।
समत्वान्नाभवद् तेषामुत्तमाधममध्यता ॥
न खेटनगरग्रामपुरक्षेत्रखलादिकम् ।
न दंशमशकक्रव्याद्भयं वा न ग्रहादि च ॥
कल्पद्रुमात्तभोगानां न चैषां प्रभुरप्यभूत् ।
पुरास्मिन् भारते वर्षे तेषां निवसतां क्षितौ ॥
जगाम सुबहुः कालः सुरैः सार्धं सुर (रित्र?श्रि) याम् ।
अज्ञाततत्प्रभावानां सहसंवाससंभवात् ॥
अथैषामभवद् दैवादवज्ञा त्रिदशान् प्रति ।
अपूज्यमानास्ते पूज्याः सर्वेऽप्यखिलवेदिनः ॥
आदाय तत्कल्पतरुं निपेतुर्द्यां दिवौकसः ।
दिवंगमनशक्तिश्च दिव्यो भावश्च तद्गतः ॥
सरसः परमो भूमौ भूरसश्च न्यवर्तत ।
स्मृत्वा कल्पद्रुमांस्तांस्तान् क्रीडास्ताश्च सुरैः सह ॥
व्यलपन् बहुधात्यर्थमनर्थकृतचेतसः ।
ततो विलपतां भूरि स्वैरमाहारहेतवे ॥
प्राणत्राणार्थमेतेषामभूत् पर्पटको भुवि ।
भूरसेनैव तेनैते कुर्वाणाः प्राणरक्षणम् ॥
विना कल्पद्रुमैर्वासमन्यवृक्षेषु चक्रिरे ।
अथैषां पश्यतामेव कदाचिद् भाग्यसंक्षयात् ॥
विपर्ययाच्च कालस्य भूमेः पर्पटकोऽप्यगात् ।
ततः पर्पटके नष्टे तुषशूककणोज्झिताः ॥
अकृष्टपच्या मेदिन्यामभवञ् शालितण्डुलाः ।
शाल्योदनेन तेनाथ सुस्वादुव्यञ्जनेन ते ॥
परमां तृप्तिमासेदुः परितोषात्तचेतसः ॥

तन्नाशशङ्कया शालितण्डुलानां द्रुमेष्वथ ॥
ते व्यधुर्महतो राशींस्तत्क्षेत्राणि च चक्रिरे ।
अजायत ततो लोभो मात्सर्येर्ष्यापुरस्सरः ॥
तत्र तत्र शनैश्चक्रे पदन्यासं च मन्मथः ।
द्वन्द्वप्राप्त्या ततस्तेषां विश्रतामुत्तमां गतिम् ॥
धैर्यध्वंसादभूत् स्त्रीषु भृशं रागतुरङ्गमः ।
दारक्षेत्रनिमित्तानि भूयांस्येषामनन्तरम् ॥
परिक्लेशैकमूलानि द्वन्द्वान्यासन् पृथक्पृथक् ।
ततः स्वक्लृप्तमर्यादोच्छेदिष्वेष्वजितात्मसु ॥
अविनीतेष्वभाग्येषु स शालिस्तुषतामगात् ।
प्रवृद्धरजसां तेषां सा पुण्यश्लोकता गता ॥
मलप्रवृत्तिरभवत् तुषधान्योपसेवया ।
तुषधान्ये ततो नष्टे परिभुक्ते च सञ्चये ॥
चीरवल्कलवस्त्राणां कन्दमूलफलाशिनाम् ।
ऋतवः कालपर्यासात् षट् वसन्तादयोऽभवन् ॥
ततस्तेषामभूद् दोषरोगशोकाकुलं वपुः ।
मनश्च कामक्रोधेर्ष्यादैन्यासूयादिदूषितम् ॥
आधिदैवकमुष्णाम्बुशीतादिजनितं महत् ।
आधिभौतिकमप्यासीद् दुःखं व्यालमृगादिजम् ॥
इत्थं दुःखत्रयार्त्तास्ते व्यवायाद्यभिगुप्तये ।
हिमनीहारशीताम्बुवाताद्यापच्छिदेऽपि च ॥
अजातप्रीतयो वृक्षैः कुट्टिमानि गृहाणि (ते?च) ।
व्यधुश्छित्वाश्मभिर्वृक्षानन्यान् दुःखार्तचेतसः ॥
स्मृत्वा कल्पद्रुमाकारास्तद्रूपाणि गृहाणि ते ।
एकद्वित्रिचतुःसप्तदशशालानि चक्रिरे ॥
श(न्दा?ष्प) प्राकारपरिखेष्वाच्छन्नेषु तृणादिभिः ।
हृष्टास्तेष्वनयन् कालमासेषु गृहमेधिनः ॥
इत्यमीषु गृहिणो गृहेषु ते शीतवातजलतापनाशिषु ।
हर्षसंवलितमानसाश्चिरं सन्निरस्तविपदोऽवसन् सुखम् ॥

तद्विकासे विविधशालभवनानामुपन्यासः—दशवर्गाश्च

स० सू०
१६. २–१०॥
(विविधाः वर्गाः)

वेश्मनामेकशालानां शतमष्टाधिकं स्मृतम् ।
द्वापञ्चाशद् द्विशालानां त्रिशालानां द्विसप्ततिः ॥
चतुःशालानि वेश्मानि यानि तेषां शतद्वयम् ।
पञ्चाशच्चाधिका षड्भिर्विज्ञातव्या मनीषिभिः ॥

सहस्रं पञ्चशालानां स्यात् तथा पञ्चविंशतिः ।
षट्शालानां षण्णवतिः स्यात् सहस्रचतुष्टयम् ॥
अष्टाङ्के त्वेकशालस्य भेदाः पञ्चाशदीरिताः ।
द्विशालानां तु सर्वेषां प्रभेदाः शतपञ्चकम् ॥
शतं शतं च प्रत्येकं त्रिशालानामुदाहृतम् ।
द्विचत्वारिंशदधिकं चतुःशालशताष्टकम् ॥
द्विनवत्युत्तराण्येवं शतानि दश च सप्त च ।
षोडशैव सहस्राणि षोडशोना चतुःशती ॥
वेश्मानि सप्तशालानि भवन्ति परिसङ्ख्यया ।
पञ्चषष्टिसहस्राणि तथा पञ्चशतानि च ॥
गृहाणामष्टशालानां षट्त्रिंशदपरा भवेत् ।
लक्षद्वयं सहस्राणि द्विषष्टिः शतमेव च ॥
गृहाणां नवशालानां चत्वारिंशच्चतुर्युता ।
दशलक्षसहस्राणि चत्वारिंशत् तथाष्ट च ॥
शतानि दशशालानां पञ्च षट्सप्ततिस्तथा ।

शालगृह-संयोजनम्

वास्तुम० ६. २८-३२

एकद्वित्रिचतुःशालं गृहं प्रस्तारतो भवेत् ।
पञ्चादिदशशालान्तं तेषां संयोगतो मिथः ॥
गृहाणां पञ्चशालानां षड्विधा योजना मता ॥
नवधा रसशालानां सप्तशाले शिवोन्मिता ॥
अष्टशाले तिथिमिता नवशालेऽष्टभूमिता ।
योजना दशशालायां त्रयोविंशतिधा मता ॥

भवनाङ्गानां निघण्टुः—स० सू० १८. १०–५८

१. हर्म्यम्	गृहस्योपरिभूमिर्या हर्म्यं तत् परिकीर्तितम् ।
२. सोपानम्	तस्यारोहणमार्गो यः सोपानं तत् प्रचक्षते ॥
३. अधिरोहणम्	काष्ठकैर्यत्र रचितं स्थूणयोरधिरोहणम् ।
४. निःश्रेणिः	सा निःश्रेणिरिति प्रोक्ता सोपानैर्विपुलैः पदैः ॥
५. काष्ठविटङ्कः	स्मृतः काष्ठविटङ्कोऽसौ यत्काष्ठैः संवृतं गृहम् ।
६. सौधम्	सुधालिप्ततलं हर्म्यं सौधं स्यात् कुट्टिमं च तत् ॥
७. अभिगुप्तिः	वर्षाभयेन या छन्ना तालशाकदलादिभिः ।
	स्मृताभिगुप्तिरन्तस्था सर्वोपरि गृहस्य सा ॥
८. अवलोकनम्	वातायनं तु भित्तीनामवलोकनमुच्यते ।
९. अवलोकनकम्	लघुर्वातायनो यः स्यादवलोकनकं हि तत् ॥

१०. उल्लोकः	हर्म्यस्य मध्ये यच्छिद्रं स उल्लोक इति स्मृतः।
११. हर्म्यप्राकारकः	हर्म्यप्राकारकः स स्यात् कण्ठा हर्म्यतलस्य या॥
१२. वितर्दिका	वितर्दिकाष्टमाला स्यात् सर्वतश्छेदमूलगा।
१३. ईहामृगाः	तस्तम्भेषु मृगा ये तु ते स्युरीहामृगा इति॥
१४. निर्यूहः	निर्यूहो हर्म्यदेशाद् यः काष्ठानामुपनिर्गमः।
१५. वलीकम्	वलीकमिति विज्ञेयं काष्ठं छेदाद् विनिर्गतम्॥
१६. चतुश्शालम्	छन्नैश्चतुर्भिः पार्श्वैर्यत् तच्चतुश्शालमुच्यते।
१७,१८. त्रिशालद्विशाले	त्रिभिस्त्रिशालं तत् प्राहुर्द्वाभ्यां तत् स्याद् द्विशालकम्॥
१९. एकशालम्	एकशालकमेकेनच्छन्नेन गृहमुच्यते।
२०. शाला	गृहमेकं तु यच्छन्नं सर्वं शालेति सा स्मृता॥
२१. वापी, २२. पुष्क०	शालानां यत् पुनर्मध्यं वापी पुष्करिणी च सा।
२३. गर्भगृहम्	संछन्ना (चा?सा) पि यस्य स्यात् तद् गर्भगृहमुच्यते।
२४. महाजनस्थानम्	गृहे महाजनस्थानं त्रिकुड्यं यत् प्रकल्पितम्।
२५. उपस्थानम्	उपस्थानं तदत्राहुः स्याच्चोपस्थानकं लघु॥
२६. प्रासादः	प्रासादस्तु स एव स्यादल्पा प्रासादिका स्मृता।
२७. वलभी	दीर्घप्रासादिका यासौ वलभीत्यभिधीयते॥
२८. अलिन्दः	शालाग्रे वलभी या स्यादलिन्देति वदन्ति ताम्।
२८. वलभा	शालां विना तु वलभी वलभेति निगद्यते॥
२९. अपवरकः	अल्पाल्पास्तु चतुष्कुड्या ये तेऽपवरका मताः।
३०. शुद्धान्तः	गृहे चाभ्यन्तरस्थानं शुद्धान्तमिति कीर्त्यते॥
३१. प्रतोली	प्रतोलीं तां विदुर्लोकः सुरङ्गामिव यां वसेत्।
३२. कक्षा	सा कक्षेत्युदिता तज्ज्ञैर्यदवस्थान्तरं गृहे॥
३३. कोष्ठका	यदुपस्थानकं नाम ये चापवरकास्तथा।
३४. भित्तिः	ते कोष्ठका या तु कण्ठा कुड्यं भित्तिश्चयश्च सा॥
३५. महानसम्	भक्तशाला भवेद् या तु तन्महानसमुच्यते।
३६. द्वारकोष्ठकम्	यच्छन्नं द्वारदेशे तु तमाहुर्द्वारकोष्ठकम्॥
३७. प्रवेशनम्	प्रवेशनमिति प्राहुर्द्वारनिर्गमनं तथा।
३८. उदकभ्रमः	जलनिर्गमनस्थानं विज्ञेयमुदकभ्रमः॥
३९. भवनाजिरादि	भवनस्याङ्गणं यत्तु तदाहुर्भवनाजिरम्।
४०. वनाजिरम्	वनाजिरं वनमही स्वाश्रमाजिरमाश्रमे॥
	उत्तरोदुम्बरस्याधः श्लिष्टां मध्ये च कुड्ययोः।
४१. देहली	तज्ज्ञास्तां देहलीत्याहुः कपाटाश्रयमेव च॥
४२. कपाटम्	कपाटं द्वारपक्षः स्यात् कपाटपुटमेव च।
	पक्षः पिधानो वरणो द्वारसंवरणं तथा॥
	कपाटं संपुटस्ते द्वे(?)कपाटयुगलं च तत्।

४३. अर्गला कलिका द्वारबन्धार्थो या स्यात् तामर्गलां विदुः॥

४४. अर्गलसूची सा स्यादर्गलसूचीति यदि दीर्घा प्रमाणतः।

४५,४६. परिघः, फलिहः पुराणां सा तु परिघः फलिहो गजवारणम्॥

छिद्रैर्गवाक्षप्रतिमश्छिद्रितं सर्वतस्तु यत्।

४७,४८. फलकम् गवाक्षः फलकं तद् गवाक्षः स्याज्जालमित्यपि कथ्यते॥

हर्म्यद्वारे गृहद्वारे तथा हर्म्यावलोकने।

४९. प्रासादिका प्राकारान्तरपृष्ठे तु या च प्रासादिका भवेत्॥

५०. तोरणम् पार्श्वयोरुभयोरेषां फलकद्वयमुच्छ्रितम्।

उपर्युपरि संक्षिप्तमर्धचन्द्रद्वयाकृति॥

आनने द्वे यथा चास्मिन् शिलष्टैरग्र्यैर्महाधरैः।

तयोरुपरि सन्धौ च तारकाकृति मण्डलम्॥

तत्तोरणमिति प्रोक्तं यच्च तेन परिष्कृतम्।

५१,५२,५३. सुवर्ण-मणि-पुष्पतोरणानि सुवर्णतोरणं च स्यान्मणितोरणमेव च॥

पुष्पतोरणमप्येतत् क्रियते पुष्पकादिभिः

५४. सिंहकर्णः तोरणाग्रे ठकारो यः सिंहकर्णः स उच्यते॥

५५. संयमनम् नाम्ना संयमनानीति गृहसञ्चरभूमयः।

गृहस्य पार्श्वे यद्यस्मिस्तत् तत्संयमनं विदुः॥

५६. मरालपाली भित्तेर्यद्वाथ दारूणां तरङ्गाग्रवदानतम्।

५७. प्रणाली मरालपाली सा हर्म्या (व्) प्रणाली निर्गमोऽम्भसः॥

५८. प्राकारः प्रद्वारम् स च प्राकार इत्युक्तः कण्ठः स्यादङ्गणस्य यः।

द्वारस्य तु समीपे यत् प्रद्वारं तदिहोच्यते॥

५९. आस्थालकम् यदिष्टकचितं मूले द्वारस्य भवति स्थलम्।

दीर्घं वा ह्रस्वमथवा तदास्थालकमिष्यते॥

६०. अमेध्या अवस्करः मूत्रभूमिरमेध्येति वर्चस्कोवस्करस्तथा।

६१. परिसरः गृहाच्च भित्तिसामान्यं बाह्यं परिसरो मतः॥

६२. अट्टः विस्तीर्णमुच्छ्रितं यत् स्याद् वेश्म सोऽट्ट उदाहृतः।

६३. अट्टालकः संक्षिप्तमेतदेवोक्तं तज्ज्ञैरट्टालकाख्यया॥

६४. अट्टाली तदेवात्यन्तसंक्षिप्तमट्टालीति निगद्यते।

६५. अट्टालिका अट्टाली या तु नात्युच्चा तामत्राट्टालिकां विदुः॥

६६. धारागृहम् एकनाडीगतच्छिद्रैः काष्ठनालैः परिश्रितम्।

यत्र काष्ठप्रणालीति छदपृष्टेऽम्बु धावति॥

स्तम्भशीर्षकरूपाणि काष्ठमूलाश्रितानि च।

सुषिराणि प्रयत्नेन काष्ठनाडीमुखान्तरैः (?)॥

रूपाणामथ तेषां तु स्तननासामुखादिभिः।

नानास्थानस्थितानां च वृषवानरदंष्ट्रिणाम्॥

कृतसूक्ष्मान्तरच्छिद्रैः प्रवर्षति समन्ततः ।
तद्धारागृहमित्युक्तं धारागारादिनामभृत् ॥

६७. दर्पणगृहम् कांस्यैर्लोहैस्तथा पट्टैर्निमृष्टादर्शनिर्मलैः ।
निचिता यस्य भित्तिः स्यात् तद् दर्पणगृहं विदुः ॥

६८. पक्षद्वारम् पक्षद्वारं तदत्राहुर्यन्महाद्वारतोऽपरम् ।

६९. गोपुरम् तत् प्राकाराश्रितं द्वारं पुरे तद् गोपुरं विदुः ॥

७०. उपकार्या निर्गताश्चोच्छ्रिताश्चैव प्राकारस्यान्तरान्तरा ।

७१. चौमः उपका (र्या?र्या) इति प्रोक्ताः चौमाश्चाट्टालका मताः ॥

७२. पुरीसंवरणम् चयप्राकारशालाः स्युः पुरीसंवरणाभिधाः ।

७३. उपनिष्कला प्राकारादनुपालास्तु प्राकार उपनिष्कला (?) ॥

७४. क्रीडागृहम् क्रीडागृहं यदारामे तदुद्यानं प्रचक्षते ।

७५,७६.जलोद्यान-जलवेश्मनी तीरेऽम्भसो जलोद्यानं जलवेश्माम्बुमध्यगम् ॥

७७. क्रीडागारम् क्रीडागृहं यदत्रोक्तं क्रीडागारं तदुच्यते ।

७८. विहारभूमिः विहारभूमिराक्रीडभूमिरित्यभिधीयते ॥

७९. चैत्यादिदेवता-यतनम् देवधिष्ण्यं सुरस्थानं चैत्यमर्चागृहं च तत् ।
देवतायतनम् प्राहुर्विबुधागारमित्यपि ॥

८०. गोष्टम् छन्नं भवेद् यत्तु महाजनस्य स्थानं सभा सा कथिता च शाला ।
गवां पुनर्मन्दिरमत्र गोष्टमाचक्षते वास्तुनिवेशविज्ञाः ॥

टि०—आवासभवनेष्वपि देवभवनेष्विव—उपपीठ-विधानम्, अधिष्ठानविधानम्, प्रस्तर-विधानम्, सन्धिकर्म इत्यादीनां प्रसङ्गः । तत्तास्तान्यत्र न दीयन्ते । प्रासाद-वास्तु-खण्डे तु वक्ष्यन्त एव ।

गृहभेदाः अथेदानीं प्रवक्ष्यामि गृहस्योत्पत्तिलक्षणम् ।
गृहोत्पत्तिर्व्याख्या च उत्पद्यते यथात्वाद्यं गृहादीनां तु सम्भवम् ॥
अ० पु० ६६. १-१२ आचार्यैर्दिव्यज्ञानैश्च पूर्वानतपद्मासनैः ।
पडिका (घटिका?) याम्यहस्तेषु त्रिपातहस्तोद्भूता? ॥
पडिका संस्थिता पृथ्वी तत्र नाद्यबिन्दूद्भवाः? ।
बिन्दूलया शिवा ज्ञेया सा सृष्टिश्चैवमुद्भवः? ॥
बिन्दु वामा कृता रेखा वामावर्ते पूर्वोदिताः ।
पूर्वापरगतास्त्वेवं सृष्टिसंज्ञाविधानकम्? ॥
ऐशान्या अग्निपर्यन्तमाश्रमं वस्तुसम्भवम् ।
आश्रयन्ति समस्ताश्च जीवा महितचेतसः ॥
आग्नेयां निर्ऋतिर्यावत् सदा सृष्टिर्विनश्यति ।
इत्यमालयसंज्ञा स्यात् सृष्टितोऽयं समुद्भवः ॥
आलयः सर्वसत्त्वानां सर्वभूतात्मनां हितः ।

तदेवं लीयते सर्वमालयादिसमुद्भवम् ॥
नैर्ऋत्यनिलसंभूता सृष्टिस्त्वेवं समुद्गता ।
कोष्ठकाभिधानमेतद् चतुरश्रीकृतं शुभम् ॥
आच्छादितं तथा चोर्ध्वं तच्च कोष्ठाभिधानकम् ।
कोष्ठकं चतुर्हस्तान्तमाच्छाद्यं छाद्यकं विदुः ॥
आच्छाद्यं तु यदा क्षेत्रमेकहस्ताच्छतार्धतः ।
आवेष्टितं खलीपाटं फलकं स्याद् गृहाङ्गणम् ॥
एकद्वित्रिसहस्रैश्च हस्तैर्मानसमन्वितम् ।
नगरेषु तथावेष्टकूटप्राकारसंज्ञितम् ॥
चतुर्हस्तादितः क्षेत्रं शिरश्छाद्यं समोदये ।
पूर्वं चैकद्वारयुतं गृहसंज्ञं तदुच्यते ॥

द्वारभेदैः गृहभेदा एकद्वारं भवेद्वेश्म पूर्वापरद्वारनिलयः ।
६६. १३ त्रिद्वारं करणं प्रोक्तं चतुर्भिश्चातुरं भवेत् ॥
तेषां षट्छन्दांसि षड्जात्युत्पन्नच्छन्दा भद्रैर्भिन्ना द्विरष्टभिः ।
६६. १४-१६ इत्युक्तक्रमरूपाख्या गृहसङ्ख्या त्वनेकधा ॥
तृणपट्टौ छादने स्तः वाजिच्छन्दः शिलामयः ।
खण्डच्छन्दो गृहमध्यं पूर्णच्छन्दो ह्यधोगृहम् ॥
पाण्डुच्छन्दस्तथाचैव भूम्यूर्ध्वं शैलजाश्रितः ।
षण्णां तु छन्दसां प्रोक्तः सृष्टिकाले समुद्भवः ॥
हर्म्यव्याख्या एकभौमं द्विभौमं वा हर्म्यं स्याद्वा त्रिभौमकम् ।
६६. १७ पट्टच्छन्दादिका भेदा हर्म्यादिवेश्मसंज्ञकाः ॥

शाल-भवन-प्रभेदाः
(एकशालादिदशशालान्तशालभवनानां लक्षणम्)

स० सू० २३. १-४ गृहाणामेकशालानां वक्ष्यामो लक्षणान्यथ ।
शस्तानां निन्दितानां च यथावदनुपूर्वशः ॥
एकशालस्य विन्यसेच्चतुरः पूर्वं गुरून् वर्णान् यथाविधि ।
उत्पत्तिप्रसरः एभ्य एव प्रसूयन्ते भेदाः षोडश वेश्मनाम् ॥
गुरोरधो लघुं न्यस्येत् पूर्वं शेषं यथोपरि ।
गुरुभिः पूरयेत् पश्चाद् यावत् स्युर्लघवोऽखिलाः ॥
विद्यादलिन्दान् सर्वेषु लघुस्थानेषु पण्डितः ।
सव्यावर्तं गृहमुखादेतांश्च विनियोजयेत् ॥
प्रथमः प्रकारः एषामलिन्दसंयोगाद् भवनानां पृथक् पृथक् ।
२३. ५-११॥ नामानि गुणदोषाश्च वक्ष्यन्तेऽनुक्रमादतः ॥
ध्रुवं धन्यं जयं नन्दं खरं कान्तं मनोरमम् ।

सुमुखं दुर्मुखं क्रूरं सुपक्षं धनदं क्षयम् ॥
आक्रन्दं विपुलं चैव विजयं गृहमुत्तमम् ।
ध्रुवे जयमवाप्नोति धन्ये धान्यागमो भवेत् ॥
जये सपत्नाञ्जयति नन्दे सर्वाः समृद्धयः ।
खरमायासदं वेश्म कान्ते च लभते श्रियम् ॥
आयुरारोग्यमैश्वर्यं तथा वित्तस्य सम्पदः ।
मनोरमे मनस्तुष्टिर्गृहभर्तुः प्रकीर्तिता ॥
सुमुखे राज्यसन्मानं दुर्मुखे कलहः सदा ।
क्रूरव्याधिभयं क्रूरे सुपक्षे गोत्रवृद्धिकृत् ॥
धनदे हेमरत्नादि गाश्चैव लभते पुमान् ।
क्षयं सर्वक्षयं गेहमाक्रन्दं ज्ञातिमृत्युदम् ॥
आरोग्यं विपुले ख्यातिर्विजये सर्वसम्पदः ।

अलिन्दसंयोगादन्यः प्रकारः २३. १२–१६॥

यदि धन्ये द्वितीयोऽपि मुखालिन्दः प्रयुज्यते ॥
तद् गृहं रम्यनामेह भर्तुः सौभाग्यकारकम् ।
मुखालिन्देन नन्दाख्यं द्वितीयेन सुयोजितम् ॥
तच्छ्रीधरमिति ख्यातं तस्मिन् श्रीर्नित्यमाविशेत् ।
अलिन्दश्चेद् द्वितीयोऽपि कान्तस्यास्ये नि॰श्यते ॥
मुदितं तद् भवेद् भर्तुर्भूतिकृद् भवनोत्तमम् ।
सुमुखस्य यदालिन्दो वक्त्रेऽन्यो विनिवेश्यते ॥
वर्धमानं तदा तत् स्यात् स्वामिलक्ष्मीविवर्धनम् ।
क्रूरं युक्तं द्वितीयेन मुखालिन्देन मन्दिरम् ॥
करालं तद् विजानीयाद् भर्ता तस्य विनश्यति ।
अलिन्देन द्वितीयेन धनदं योजितं पुनः ॥
सुनाभं तद् भवेत् तस्मिन् पशून् पुत्रानवाप्नुयात् ।
आक्रन्दस्य पुरोभागे यद्यलिन्दः कृतोऽपरः ॥
ध्वाङ्क्षसंज्ञं गृहं तज्ज्ञा निन्दितं प्रवदन्ति तत् ।
द्वितीयालिन्दघटना विजयस्य मुखे यदि ॥
तत् समृद्धमिति ख्यातं गृहं स्यात् पुण्यकर्मणाम् ।

द्वितीयः प्रकारः २३. २०–२३॥

यान्युक्तानि ध्रुवादीनि पूर्ववेश्मानि षोडश ॥
शालाविभागं ज्ञात्वैषां तिर्यक् षड् दारु विन्यसेत् ।
षोडशान्ये च भेदाः स्युः संज्ञाश्चैषामनुक्रमात् ॥
सुन्दरं वरदं भद्रं प्रमोदं विमुखं शिवम् ।
सर्वलाभं विशालं च विलक्षमशुभं ध्वजम् ॥
उद्योतं भीषणं शून्यमजितं कुलनन्दनम् ।
नामभिर्वेश्मनामेषां गुणदोषान् प्रकल्पयेत् ॥

यथार्थनामान्येतानि यस्मात् प्रोक्तान्यविस्तरात्।

तृतीयः प्रकारः एभ्य एवापराणि स्युर्वेश्मान्यन्यानि षोडश॥

२३. २४-२६॥ शालापुरोविनिर्युक्ततिर्यक्पड्दारुकारणात्।

हंसं सुलक्षणं सौम्यं जयन्तं भव्यमुत्तमम्॥

रुचिरं सम्भृतं क्षेममाक्षेमं सुकृतं वृषम्।

उच्छ्रुन्नं व्ययमानन्दं सुनन्दं चेति कीर्तितम्॥

एषामपि यथार्थत्वाद् गुणदोषान् निरूपयेत्।

चतुर्थः प्रकारः शालामध्ये च तिर्यक्स्थं षड्दारु विनिवेशयेत्॥

२३. २७-३० विहाय मर्मणां वेधानमीषामेव वेश्मनाम्।

षोडशैव परेऽपि स्युर्भेदास्तांश्च यथाक्रमम्॥

कथयामः समासेन यथार्थैरेव नामभिः।

अलङ्कृतमलङ्कारं रमणं पूर्णमम्बरम्॥

पुण्यं सुगर्भं कलशं दुर्गतं रिक्तमीप्सितम्।

सुभद्रं वन्दितं दीनं विभवं सर्वकामदम्॥

पञ्चमः प्रकारः शालान्तःस्थितषड्दारु पश्चादपवरैः कृतैः।

२३. ३१-३३ एभ्योऽपरेऽपि निर्दिष्टा भेदाः षोडश वेश्मनाम्॥

प्रभवं भाविकं क्रीडं तिलकं क्रीडनं सुखम्।

यशोदं कुमुदं कालं भासुरं सर्वभूषणम्॥

वसुधारं धनहरं कुपितं चित्तवृद्धिदम्।

कुलोदयं च विज्ञेयं गुणदोषास्तु पूर्ववत्॥

षष्ठः प्रकारः अनन्तरमिहोक्तानि यानि वेश्मानि षोडश।

२३. ३४-३७॥ प्रत्येकं तान्यलिन्देन परि (कु?क्ल) प्तचतुर्दिशम्॥

तद्भेदेभ्यः प्रसूतानि कथयामो विधानतः।

चूडामणि प्रभद्रं च क्षेमं शेखरमद्भुतम्॥

विकाशं भूतिदं हृष्टं विरोधं कालपाशकम्।

निरामयं सुशालं च रौद्रं मोघं मनोरथम्॥

सुभद्रं चेति सदनं संज्ञाभिरुपलक्षयेत्।

वेश्मनामेकशालानां शतं स्याच्चतुरुत्तरम्॥

कथितं तच्च संस्थानैर्नामभिश्च यथाक्रमम्।

अन्तिमः विशिष्टः हस्तिनी महिषी गावी छागली च यथाक्रमम्॥

प्रकारः तद्द्वयेन द्विपूर्वाणि ब्रूमो नामानि वेश्मनाम्।

२३. ३८-४१॥ द्विहंसकं द्विचक्राह्वं द्विसारसमथापरम्॥

द्विकोकिलं बुधैः ख्यातं हस्तिन्यादेः क्रमाद् गृहम्।

त्रीण्यायुः पशुधान्यानां क्रमादाद्यानि वृद्धये॥

एतेषामेव नाशाय भवेद् वेश्म द्विकोकिलम्।

इत्येकशालभवनान्युदितान्यलिन्द-
षड्दारुकापवरकावरणादिभेदैः ।
संज्ञा च लक्षणफलैः करिणीमुखाभिः,
शालाभिरेवमपराणि च युग्मजानि ॥

द्विशालस्य षट् मुख्यभेदाः २२. २,७–६॥

सिद्धार्थं यमसूर्यं च दण्डाख्यं वातसंज्ञितम् ।
चुल्ली काचं च मुख्यानि द्विशालानि षडेव हि ॥
हस्तिनी महिषी चेति द्वे शाले यत्र वेश्मनि ।
तत् सिद्धार्थमिति ज्ञेयं वित्तसम्पत्तिकारकम् ॥
मृत्युदं महिषीगावीभ्यां भवेद् यमसूर्यकम् ।
दण्डं स्याच्छगलीगावीशालाभ्यां दण्डभीतिदम् ॥
वातं करेणुच्छालीयुक्तमुद्वेगकारकम् ।
महिष्यजाभ्यामुद्वेगकरी चुल्ली धनापहा ॥
काचं करेणुगावीभ्यां सुहृत्प्रीतिविनाशनम् ।

भेदोपभेदाः २२. १०–२०॥

एकमूषममूषं च न द्विशालेषु कारयेत् ॥
व्यत्यासात् काचचुल्ल्योश्च सर्वाभिस्तिसृभिस्तथा ।
चत्वार्याद्यानि भिद्यन्ते लघुप्रस्तारयोगतः ॥
प्रत्येकमेकादशधा मन्दिराण्यभिधानतः ।
अन्ये चतुर्धा भिद्यन्ते प्रत्येकं द्वे निवेशने ॥
एषां मूषा भिदाभेदात् तद्वाह्यावाहहेतुकाः ।
वसुधारं भवेत् तेषामाद्यं सिद्धार्थकं ततः ॥
कल्याणकं शाश्वतं च शिवं कामप्रदं तथा ।
श्रीदं शान्तं निष्कलङ्कं धनाधीशं कुबेरकम् ॥
सिद्धार्थमनुजान्येवमेतान्येकादश क्रमात् ।
संहारं यमसूर्यं च कालं वैवस्वतं यमम् ॥
करालं विकरालं च कबन्धं मृतकं शवम् ।
यमसूर्यस्य भेदाः स्युः स नो महिम्नं तथा ॥
प्रचण्डचण्डे दण्डाख्यमुद्दण्डं काण्डकोटरे ।
विग्रहं निग्रहं धूम्रं निर्धूमं दन्तिदारुणम् ॥
एकादशामी दण्डस्य भेदा दण्डभयप्रदाः ।
मरुत्पवनवाताख्यान्यनिलं सप्रभञ्जनम् ॥
घनार्यम्बुदध्वंसि प्रलयं कलहं कलिः ।
कलिचुल्ली च वातस्य भेदा उद्वेगदायकाः ॥
रोगं चुल्ल्यनलं भस्म चुल्ल्या भेदचतुष्टयम् ।
काचस्य नुच्छलं काचं कुलघ्नं च विरोधि च ॥
द्वापञ्चाशद् द्विशालानाममी भेदाः प्रकीर्तिताः ।

त्रिशालस्य मुख्य-भेदाश्चत्वारः २१. १–२

अथ द्वासप्ततेर्ब्रूमस्त्रिशालानां यथाक्रमम्।
अभिधानानि कार्त्स्न्येन लक्षणानि पृथक्पृथक्॥
मुख्यानि तेषु चत्वारि कथ्यन्ते तानि नामतः।
हिरण्यनाभं सुक्षेत्रं चुल्ली पक्षघ्नमेव च॥

भेदोपभेदाः २१, ३–१७॥

हिरण्यनाभमुत्कृष्टं हीनमुत्तरशालया।
तत् स्याद् धनप्रदं भर्तुः सुक्षेत्रं पूर्वया विना॥
सुक्षेत्रं लक्षणोपेतंमृद्धिवृद्धिप्रदं विभोः।
चुल्ली दक्षिणया हीना शालया वित्तनाशिनी॥
पक्षघ्नं पश्चिमाहीनं वैरकृत् कुलनाशनम्।
अलिन्दयोगादेतेषां लघुप्रस्तारयोगतः॥
मूषायोगाच्च भेदाः स्युरष्टादश पृथक्पृथक्।
जाम्बूनदं हिरण्याख्यं रुक्माख्यं हेमसंज्ञितम्॥
कनकं काञ्चनं स्वर्णं सुवर्णं च ततः परम्।
सन्तापसंज्ञं सारं च तथा चामीकराह्वयम्॥
तपनं तापनीयं च शातकुम्भमथापि च।
हिरण्यनाभं कल्याणं भूषणं भूतिभूषणम्॥
भेदा हिरण्यनाभस्येत्यष्टादश भवन्त्यमी।
नागं सूर्यप्रभाख्यं च मत्तवारणकं तथा॥
चतुर्थं केसरीत्युक्तं वासवं चेन्द्रमेव च।
हरिहंसं सारसा (खं?ख्यं) कुञ्जरं तोयदं तथा॥
मेघमालाभिधानं च धारासारं महोदरम्।
कर्दमं नामतश्चान्यत् सुक्षेत्रं प्रकरं तथा॥
सुक्षेत्रानुगतान्याहुस्तथान्यद् धान्यपूरकम्।
चुल्लीभेदानथ ब्रूमस्तेषामाद्यं भुजङ्गमम्॥
निर्जीवाख्यं विहङ्गं च नकुलं पन्नगाह्वयम्।
शतच्छिद्रं च सर्पं च कोपसंज्ञं भगन्दरम्॥
उद्वेजनाख्यं सन्न्यासं निस्तोषं करुणाननम्।
वारणं दारणं चुल्ली ककुदं कन्दरं तथा॥
इति चुल्लीप्रभेदेषु मन्दिराणि दशाष्ट च।
ब्रूमः पक्षघ्नसंबद्धगृहनामानि सम्प्रति॥
राक्षसं ध्वान्तसंहारं देवारि सुरदारुणम्।
घोषणं व्याघ्रशार्दूले शोषणाख्यं विशोषणम्॥
मृत्युदं च निरानन्दं शाकुनं विघ्ननिर्घृणे।
रिपुसंहदपक्षघ्ने सुतघ्नं वैरिपूरणम्॥
इत्यष्टादश पक्षघ्नभेदाः प्रोक्ता यथाक्रमम्।

चतुश्शालस्य विप्रादिविषये मानविकल्पाः १६. १९–२१	वर्णिनां स्याच्चतुःशालं मितं द्वात्रिंशता करैः । सेनापतेश्चतुःषष्टिस्तद्वदेव पुरोधसः ॥ श्रेष्ठमष्टशतं राज्ञामेतानि तु यथाक्रमम् । चतुः षडष्टहान्या स्युः पञ्चमं च पृथक् पृथक् ॥ विशोधयेत् कनीयोभिर्मध्यमानि यथाक्रमम् । नरेन्द्रपुरुषाणां स्युर्वेश्मान्येतानि वृद्धये ॥ गृहाणि शोधयेत् प्राग्वज्ज्यायांस्यपि च मध्यमैः । भवन्त्येता भूपानां रतिकोशप्रतिश्रयाः ॥ दशांशयुक्तो विस्तारादायामो विप्रवेश्मनाम् । अष्टषट्चतुरंशाढ्यः चत्रादित्रयवेश्मनाम् ॥ यो विस्तारः स एव स्यादायामोऽस्मिन् यथाक्रमम् । विट्शूद्रयोः स्यादाधिक्यं मध्ये ज्येष्ठे च सद्मनि ॥ कर्णसूत्राद् वहिः स्तम्भान् न्यसेत् सर्वान् प्रयत्नतः । धाम्नां षोडशहस्तानां पञ्चानां चतुरुत्तरा ॥
तेषु शालालिन्दादिप्रमाणम् १६. २२–२८	वृद्धिः शालास्तु तेषां स्युश्चतुरंशेन विस्तृता । शालाव्यासार्धतोऽलिन्दः सर्वेषामपि वेश्मनाम् ॥ तस्याः षोडशहस्ते स्यात् पञ्चमांशद्वयेन वा । सप्तमांशत्रयेण स्याद् द्वयोरपरवेश्मनोः ॥ अन्त्ययोर्हस्तयोः स स्याच्चतुर्भिर्नवमांशकैः । पञ्चभिः षड्भिरेभिश्च सार्धैः साङ्घ्रिनगैः करैः । दैर्घ्यं स्याद् दशभिः सार्धैः शालायाः षोडशादिषु । निवेशदशमांशो यः स युतः सप्तभिः करैः ॥ शालाया विस्तरः प्रोक्तः श्रेष्ठानामिह वेश्मनाम् । अलिन्दमानं प्रागेव प्रोक्तं निखिलवेश्मनाम् ॥ यच्छालालिन्दयोः शेषं भवेद् गर्भगृहं हि तत् । मूषावच्छिन्नमिच्छन्ति शालादैर्घ्यं विपश्चितः ॥ शालाव्यासप्रमाणा स्यात् सर्वेषामवकोसिमा । दिशासु भवने शाला विदिशाकर्णसामयः (?) ॥
मूषावकोसिमययोः स्वरूपं फलं च १६. २९–३६॥	कर्णशाला(त?तु)या प्रोक्ता सा च ज्ञेयावकोसिमा । अलिन्दशालयोर्मध्ये या स्यान्मूषेति सा स्मृता ॥ पूर्वद्वारं नियम्यादावादिभूषा तदुत्तरा । मूषा भद्रा इति प्राहुस्तत्संख्यामवधारयेत् ॥ यावन्मूषं भवेद् वेश्म तावद् भद्रं तदुच्यते । भद्राभद्रे शक्रदिक्स्थे सौम्यासौम्ये यमाश्रिते ॥ शान्ताशान्ते प्रतीचीस्थे सौम्यदिक्स्थे शिवाशिवे ।

अलिन्दा इति केऽप्याहुर्मूषा इत्यपरे विदुः ॥
भद्रा इति जगुः केचिदन्ये परिसरा इति ।
एकद्वित्रिचतुःपञ्चषट्सप्ता(ष्टौ?ष्ट) क्रमेण याः ॥
मूषास्तासां प्रवहणसंज्ञाः स्युर्वेश्मनामिह ।
तासामाद्याः प्रशस्ताः स्युरप्रशस्तास्ततः पराः ॥
नामतो गुणतश्चैव शुभाशुभफलोदयात् ।
अष्टावादौ गुरून् न्यस्येत् ततश्चाद्यगुरोरधः ॥
लघुं न्यस्येत् ततः शेषान् विदधीत यथोपरि ।
गुरुभिः पूरयेदादिं यावत् स्युर्लघवोऽखिलाः ॥
आद्यपङ्क्तौ गुरुश्चैको लघुश्चैको यथाक्रमम् ।
अतः परं तु द्विगुणाः प्रतिपङ्क्ति भवन्त्यमी ॥
मूषाभेदाश्चतुःशाले षट्पञ्चाशच्छतद्वयम् ।
अलिन्दवीथीप्रग्रीवनिर्यूहकगवाक्षकैः ॥
तमङ्गभद्रविन्यासरचनाभिरनेकधा ।
अपरस्परसंबाधात् संवृतैर्विवृतैरपि ॥
गृहभेदाः प्रसूयन्ते येषां संख्या न विद्यते ।

भेद-प्रभेदाः
१६. ४०–७३

यत्संबद्धचतुश्शालममूषालिन्दकं हि तत् ॥
एकभद्रादिगेहानां ब्रूमो नामान्यतः परम् ।
यान्येकलघुलक्षाणि प्रस्तारे तानि तद्विदः ॥
कथयन्त्येवभद्राणि क्रमसंख्याविभागतः ।
प्रागायतं प्राग्विलग्नं जयं संयमनप्रियम् ॥
प्रतीच्यं प्रासविन्यासं सुभद्रं कलहोत्तरम् ।
अष्टौ तान्येकभद्राणि द्विभद्राण्यभिदध्महे ॥
पूर्वोत्तरोत्तरं पूर्वाद् भद्रादिह विधानतः ।
स्यातां प्राग्मेलकाद्यद्वत् पूर्वाद्या दक्षिणा परे(?) ॥
ईरं सुनीथमाग्नेयं द्वीपमाप्यं सुसंयमम् ।
अर्धर्चभैमं व्याकोशं नैर्ऋतं वृषभं विनम् ॥
काव्यं विपासमानीरं कान्तं सौभं विपश्चिमम् ।
गवयं श्रीवहं श्लिष्टं गणं भीममयोगमम् ॥
वतं चलं शठं कान्तमित्यष्टाविंशको गणः ।
द्विभद्राणां समाख्यातस्त्रिभद्राणामतः परम् ॥
ऐन्द्रं विलोमनायामं वधमेकाक्षमन्तिकम् ।
प्रकाशं पैत्रमायत्तं भद्रं प्रान्तं प्रसाधकम् ॥
क्षमं विघातमायातं कान्तं चित्रं द्विमन्दिरम् ।
सुदक्षिणं भयं श्लिष्टं प्रमोदं व्यायतं वियत् ॥

आप्यं सुनागं नागेन्द्रमीरितं शोभनं वनम् ।
शस्तोत्तरं कफं कर्णं क्रुष्टं क्रान्तं क्रमागतम् ॥
द्विशस्तं द्विभयं प्रोक्तं चक्रं मलश्मायतम् ।
वनं भारं सुगाराख्यमागारं वीरमेव च ॥
व्यायाममायुतं तद्वद् व्याहृतं च ततः परम् ।
दुर्गमं चोभसंज्ञं च कृत्रिमं क्षोभणं तथा ॥
चारुरुच्याभिधानं च ध्रुवं कथमिति क्रमात् ।
षट्पञ्चाशत् त्रिभद्राणि चतुर्भद्राण्यतः परम् ॥
कृतमर्चायनं पौष्णमुद्धृतं मिश्रमुत्सुकम् ।
विघ्नं विपक्षमाहूतं रुचकं वर्धनं पृथु ॥
कलहं छलमाथास्यं त्रिनाभं स्वस्तिकं स्थिरम् ॥
शरलं द्विगुणं नाद्यं चित्रं भ्रान्तं विधारणम् ।
साधारणं नतं व्यंशमृषं रोगं विशेषणम् ॥
प्रतीच्यं त्रिसमं स्वैरं सुप्रतीकं नलं क्षपम् ।
व्याप्तमाक्रीडनं व्यर्थमीशानं सुखमव्ययम् ॥
मगधं क्षिप्रमागस्त्यमेकोर्जं द्विगतं लिहम् ।
पक्वं विलोममुद्दण्डं मुण्डं मातङ्गमाखिलम् ॥
खर्वं पिनाकमुद्यन्तं विशिखं प्रसभं रजम् ।
(चुरु?रुच)कं(स?सै)फलं वामं वर्धनं धावनं सहम् ॥
चयं सेव्यं कलं तीर्णं चतुर्भद्राणि सन्ततिः ।
पञ्चभद्राण्यथोच्यन्ते षट्पञ्चाशदनुक्रमात् ॥
कानलं लोलुपं जिह्मं शृगालं सालिनं जिनम् ।
सुजयं विजयं यामं जयं ज्ञातं जयं तपम् ॥
जमं वरं चरं वैरं विशिषं सुप्रभप्रभम् ।
प्रतीक्षं त्वामिणं युक्तं शान्तं त्रैतं विनोदनम् ॥
सन्दोहं विप्रदोहं च विद्रुतं सततं ततम् ।
व्याकुलं लीनमालीनं विचित्रं लम्बनं खरम् ॥
शेखरं विबुधं चैत्रं व्यासक्तं संपदं पदम् ।
त्रिशिखं चतुरं प्रातं सुस्थितं दुःस्थितं स्थितम् ॥
चक्रं वक्रं लघुं लाभं संपर्कं मूलमव्ययम् ।
अष्टाविंशतिरन्यानि षड्भद्राणि निबोधत ॥
किन्नरं कौस्तुभं हर्म्यं धार्मिकं निषधं वसु ।
साटीकं वामनं गौरमस्थिरं क्रमिणं खलम् ॥
विवरं वालिशं धौमं त्रिपुटं मन्दिरं भवम् ।
अशोकं भास्वरं चौष्यं लातव्यं सुस्वनं मखम् ॥

वाजिनेन्त्रं अम घोषं सप्तभद्रायत्तः परम्।
भाण्डीरं वैसहं मस्थं प्रतानं वासुलं कटम्॥
लक्ष्मीवासं सुगन्धान्तमष्टधैतानि नामतः।
अन्यच्च सर्वतोभद्रमेकं भद्राभिरष्टभिः॥
संप्रकल्प्यं चतुःशालं ब्रूमश्चैषां शुभाशुभम्।
प्रदक्षिणा शुभा मूषा विपरीता विपर्यये॥
समवाये यथा भूयो जानीयात् साध्वसाधु च।
तथाष्टावेकभद्राणि सप्तभद्राणि च क्रमात्॥
द्विभद्राण्यष्टभिर्युक्ता षड्भद्राणि च विंशतिः।
षट्पञ्चाशत् त्रिभद्राणि पञ्चभद्राणि चोन्नयेत्॥
सप्ततिश्च चतुर्भद्राण्येकं भद्राभिरष्टभिः।
एवं शतद्वयं पिण्डः षट्पञ्चाशच्च वेश्मनाम्॥

गृह-विशेष-मूषास्थितिः १६, ७४–७८॥

भद्रैः पूर्वविधानेन चतुःशालक्रियादिषु।
मूषा स्यात् कुड्य जैस्तेपु चतुश्शालेषु वेश्मसु॥
अनुवंशाश्रिते मूषे स्वस्तिके तत्पराङ्मुखे।
मुखायते च पुरतो द्वे स्यातामवकोसिमे॥
नोदङ्मुखः स कर्तव्यः कार्यः प्राग्जीवसंयुतः (?)।
वर्धमाने तथा का(र्ये?र्यो) यथा प्राग्ग्रीवसंयुतः॥
वर्धमाने तथा कार्ये द्वारमूषे मुखायते।
मूषाया दक्षिणे स्यातां दीर्घवामेऽवकोसिमे॥
नन्द्यावर्तगृहे सर्वा नन्द्यावर्ता भवन्ति ताः।
द्वे (स्तरु?म्) षे रुचके स्यातामायते त्ववकोसिमे॥
सर्वद्वारवहा मूषाः सर्वतोभद्रवेश्मनि।

तृतीयः पटलः

निर्माणीयेषु अन्येषु च—

आवासगृहेषु मुख्याष्टकं स्नानगृहम्, अलङ्करणगृहम्, द्रव्यस्थापनगृहं, पचनगृहं, पूजागृहं, भोजनगृहं, शयनगृहं, धनगृहञ्चेति। तत्र केषाञ्चिल्लक्षणम्—

भोजनशाला
चि० वा०
२२. १–१३

पृथिव्यादिमहाभूतैर्निर्मिता मानुषी तनुः।
तस्मात्तद्गुणसद्द्रव्यैस्तस्याः पोषणमीरितम्॥
यथाकालं पक्वमन्नं भक्ष्यं खाद्यञ्च लेह्यकम्।
भुञ्जीयान्मतिमान्देही स्थाने सल्लक्षणान्विते॥
तस्मात्सुखादिश्रेयोऽर्थी भोजनागारमुत्तमम्।
स्थापयेत्स्वगृहे नित्यं नैमित्तिकमिदं बुधः॥
युग्मदण्डसमोपेतं दैर्घ्ये विंशतिदण्डकम्।
नैमित्तिके कल्पने तु मध्यभित्तिसमन्वितम्॥
अथवा स्तम्भपञ्चाशद्द्वारस्तम्भद्वयान्वितम्।
पार्श्वयोरुभयोः स्थाप्यं चत्वारिंशत्पदं पृथु॥
भक्ष्यादिस्थापनार्थाय वेदिमध्येऽर्कपादिका।
वातातपप्रवेशार्हा विभक्ताङ्गणशेखरा॥
एकाङ्गणेन युक्ता वा चाङ्गणद्वयभासुरा।
शाला भैक्षुकभोज्यार्हा वेदिकोपरि कीर्तिता॥
स्निग्धं भूमितलं कार्यं दीपासनसमन्वितम्।
पीठादिरचनोपेतं कल्पयेच्च मनोहरम्॥
भैक्षुकाणां यतीनां च स्थानमन्यत्प्रकीर्तितम्।
पृथगेव तथा कल्प्यं स्थानं माणवकादिनाम्॥
पितॄणां स्थानमन्यच्च कीर्तितं तन्त्रपारगैः।
योषितां भोजनस्थानं पृथगेव प्रकल्पयेत्॥
मध्ये चत्वरसंयुक्तशालाभिस्तिसृभिस्तु वा।
द्वाभ्यामुपेतमथवा चतुरङ्गणभासुरा॥
वर्तुलादिकमेतत्तु कारयेन्न कदाचन।
वटूनां प्राङ्मुखः पीठः पितॄणामुत्तराननः॥
ऐन्द्रं वारुणकं शिल्पं पुंसां श्रेयःप्रदो मतः।
योषितां प्राङ्मुखश्शस्तः सौभाग्यतनयप्रदः॥

शय्यागृहम्
वि० वा०
२३.१–११

मनोहरस्थले शय्या बलमेधादिवर्धिनी ।
तस्मात्सर्वैः प्रकर्तव्यं शय्यागेहं मनोहरम् ॥
प्रासादशालापुरतः शालान्तःस्थलभागिके ।
अलिन्दशालयोः कल्प्यमथवा कूटसद्मसु ॥
भौमादिपून्नततलेष्वपि गन्धानिलान्विते ।
स्थलेषु नातिशीतोष्णेष्वपि शय्यास्थलं मतम् ॥
क्षुद्राधिष्ठानसंयुक्तं सोपानसहितं तु वा ।
एकद्वित्रिचतुर्द्वारं प्रान्तशालावृतं तु वा ॥
दण्डद्वयादिकं मानं शालाकारं प्रकल्पयेत् ।
अन्तर्गेहसमं वाऽपि मण्डलाकारभाक्तथा ॥
चतुरश्रं कल्पनं वा कोणपट्टादिसंयुतम् ।
युग्मवातायनयुतमेकवातायनं तु वा ॥
युग्मस्तम्भकशालं वा पट्टसोपानसंयुतम् ।
सवितानं सोपशालं पञ्जरादिसमन्वितम् ॥
मध्यवेदिकया युक्तं तत्र दीपं प्रकल्पयेत् ।
प्राच्यामुदीच्यां तु मुखं कल्पनीयं सतोरणम् ॥
ससोपानं सखट्वादि कारयेच्छिल्पवित्तमः ।
दक्षिणस्यां शिरोभागः प्रतीच्यां वा विशेषतः ॥
पार्श्वयोर्मङ्गलद्रव्यस्थापनं शुभवर्धकम् ।
मुकुरादिसमोपेतं जलपात्रेण मञ्जुलम् ॥
कल्पनीयो द्वारभागे गन्धर्वश्शरहस्तकः ।
चन्द्रस्यार्कस्य वा बिम्बं कल्पयेत्तत्र मानवित् ॥

भवन-रचनाङ्गेषु—

द्वारम्
वि० वा०
२४. ७–१४

लक्ष्मीद्वारं तु पूर्वस्थं सर्वमङ्गलदायकम् ।
द्वितीयमारोग्यदं तद्गान्धर्वं देहलीस्थले ॥
कल्पनीयमिदं प्रोक्तं शयनस्थानकेऽपि च ।
विश्वकर्म तृतीयं तु दीर्घायुःप्रदमीरितम् ॥
वैवाहिकासु शालासु शालास्वन्यासु कल्पयेत् ।
चतुर्थं वैश्रवणं धनवृद्धिकरं मतम् ॥
कोशागारेषु तत्स्थाप्यं सुमुहूर्ते शुभेऽहनि ।
पञ्चमं वारुणं प्रोक्तमारोग्यशुभदायकम् ॥
स्थाप्यं तद्भाजनागारे द्रव्यशालासु सद्मसु ।
षष्ठं तु वासवं मेधावर्धकं समुदीरितम् ॥
विद्याशालासु तत्स्थाप्यममात्यभवनेष्वपि ।
शाङ्करं वैष्णवं ब्राह्मं पूजागारं शुभप्रदम् ॥

प्राङ्मुखं वोत्तरमुखमन्यच्च शुभदं मतम्।
सौरं सत्पुत्रजनकं शालायां तत्प्रकल्पयेत्॥
चान्द्रं पुष्टिप्रदं स्थाप्यं विश्रान्तिस्थलमुख्यके।
आर्षं तु मेधाजनकं भौमशालासु कल्पयेत्॥
एवं द्वादशधा प्रोक्तं तत्तच्चिह्नैर्विनिर्णयेत्।
अन्यानि पञ्च मुख्यानि तत्र तत्र प्रकल्पयेत्॥

द्वारशाखाः

स० सू०
२८. १४-१५

आद्या शाखा भवेद् देवी द्वितीया नन्दिनीति च।
तृतीया सुन्दरी नाम चतुर्थी स्यात् प्रियानना॥
भद्रेति पञ्चमी शाखा प्रशस्ताः पञ्च वेश्मनि।
अतोऽधिकास्तु याः शाखा गृहद्वारि न ताः शुभाः॥

द्वारभूषा
२५. १८-२१

सौवर्णं राजतं वाऽपि दारुजं पार्श्वपट्टकम्।
शुकपटं हंसपट्टं लताकुसुमपट्टकम्॥
अधःस्थले वा सर्वत्र कुमुदादींश्च कल्पयेत्।
गान्धर्वं भैरवं रूपं क्वचिद्द्वारेषु योजयेत्॥
षड्भागे प्रथमे कम्पदलपांशुकपट्टिकाः।
रचयेच्चित्रविन्यासं नेत्रानन्दकरं शुभम्॥
पटं पञ्च कुमुदं किङ्किणीं क्षुद्रपालिकाम्।
रेखावलिं तत्तु रूपमन्यच्चानन्ददायकम्॥

तोरणम्
वि० वा०
२६. १-८

तोरणं त्रिविधं कार्यं शिलादारुसुधादिभिः।
दैवं भौमं मानुषञ्च तक्षणादिप्रमाणतः॥
तत्तत्कार्येषु तद्योज्यं प्रमाणज्ञैः क्रियाकरैः।
शालान्ते चत्वरान्ते च क्वचिद्द्वारान्तरे तथा॥
कूटाधिष्ठानभागे च भित्त्यन्ते च कवाटके।
अलिन्दके वेदिकायामपि डोलादिषु क्वचित्॥
तले वातायने स्तम्भे पटलादिषु वा तथा।
पर्यङ्के चापि सोपाने तद्योज्यं शिल्पिभिः क्रमात्॥
वारटङ्कं भेदटङ्कं रन्ध्रटङ्कं शिखान्वितम्।
पट्टटङ्कं लताटङ्कं स्वीकुर्यादप्रमत्ततः॥
तक्षकैः कल्पकैर्वापि तोरणादिक्रियापरैः।
मानं रेखाङ्कनं शिक्षां तक्षणं रचयेत्क्रमात्॥
चूतपत्रादिरूपं वा पक्षिरूपमथापि वा।
लतारूपादिकं वापि रेखारूपं क्वचित्स्थले॥
लक्ष्म्यादिरूपमथवा गोपुरादिस्थलाकृति।
कल्पनं विविधं रम्यं नानातोरणमीरितम्॥

स्तम्भाः
वि० वा०
६४. १-७

निर्माणस्य यथा भूमिराधारस्संप्रकीर्तितः।
तथा तस्याधारमाहुः पादं शिल्पविशारदाः॥
सौकर्यं च सुखं शोभालाभः पादप्रकल्पनात्।
तस्मात्प्रकल्पयेच्छिल्पी शिलालोहद्रुमेष्टकैः॥
खातपीठविभागेन द्विविधं तदुदाहृतम्।
देवकान्तं ब्रह्मकान्तमिन्द्रकान्तमथापि वा॥
विष्णुकान्तं स्कन्दकान्तं सोमकान्तमिति क्रमात्।
वर्तुलं चतुरश्रं च षडश्रन्त्वष्टपट्टिकम्॥
द्वादशाश्रं षोडशाश्रं पादकल्पं विदुर्बुधाः।
पुरः पश्चात्सर्वतो वा कल्पस्तम्भप्रकल्पनम्॥
युग्मद्वियुग्मसङ्कीर्णोपस्तम्भादिकल्पनम्।
सुप्रतीकान्तकं सूर्यकान्तं ब्राह्मणकान्तकम्॥
कैलासमेरुकं कान्तं तथा नन्दीशकान्तकम्।
इति द्वादशभेदेन स्तम्भानां कल्पनं मतम्॥
व्यालेभमुखयुक्तं वा यक्षाननयुतन्तु वा।
नानाचित्रवलीताङ्कं शुकहंसादिरेखिकम्॥
युग्मक्रियं दोषहीनं क्वचिदेकक्रियन्तु वा।
सुधालेपनकं वापि श्लक्ष्णकं वा क्वचित्स्थले॥
यथाविभवतः कार्यं स्तम्भकल्पनमीरितम्।
शुभकालेऽलङ्कृतानां पादानां स्थापनं शुभम्॥

स० सू०
२८. २७-३३

इत्थं स्यात् पद्मकस्तम्भो युक्त्या युक्तस्वरूपकैः॥
अष्टाश्रो वा विधातव्यः स्तम्भसूत्रपरिक्रमात्।
तद्विस्तारसमं त्यक्त्वोत्सेधं भागान् विभाजयेत्॥
अष्टाश्रच्छेदमानेन बाह्यसूत्रानुपल्लवान्।
विदध्यान्मध्यभागे तु कोणांश्च पल्लिकाकुलान्॥
घटिका पुष्पमालाभिः पल्लवैश्चोपशोभिता।
छेदभागः समः कार्यो बहिर्भागविवर्जितः॥
घटपल्लवको नाम स्तम्भोऽयं परिकीर्तितः।
विहितो वेश्मनामेष स्वामिनः श्रेयसे भवेत्॥
कुबेरो वा विधातव्यः षोडशाश्रक्रियान्वितः।
ऊर्ध्वतः पल्लवाकीर्णो जङ्घास्य चतुरश्रिका॥
श्रीधरश्च भवेद् वृत्तः कल्पनास्य कुबेरवत्।
एवं गृहाणां चत्वारः स्तम्भा लक्ष्मभिरीरिताः॥

छाद्यम्
सू० सू०
२८. ४८-४९

दण्डच्छाद्यं गृहेषु स्याज्ज्ञेयं तच्च चतुर्विधम्।
भूताख्यं तिलकं तद्वन्मण्डलं कुमुदं तथा।
गृहच्छाद्येषु तेषु स्यादुच्छ्रायोऽपि चतुर्विधः॥

भित्तिः—तत्र चयविधौ—विंशतिश्चय-गुणास्तद्विपरीताः दोषाश्चापि विंशतिः—

स० सू० ४१. १–४ दानीममिधीयन्ते चयस्येह गुणागुणाः ।
सुविभक्तः समश्चास्श्चतुरश्रश्चयः शुभः ॥
असंभ्रान्तमसन्दिग्धमविनाश्यन्तर्हितम् ।
अनुत्तममनुद्वृत्तमकुब्जं न च पीडितम् ॥
समानखण्डमृज्वन्तसमन्तरगं तथैव च ।
सुपार्श्वं सन्धिसुश्लिष्टं सुप्रतिष्ठं सुसन्धि च ॥
अजिह्मं चेति चेयस्य गुणा विंशतिरित्यमी ।
एतेषां वैपरीत्येन दोषाणामपि विंशतिः ॥

कुड्य-चयन-प्रकारः ४१. उदकेन समं नीत्वा सम्यङ्निश्चयकारणम् ॥
त (त्रा?स्मा) दृते न चान्यत् स्यान्निश्चयार्थं चयस्य च ।
तस्माज्जलेन वलयं गृह्णीयात् पूर्वमादृतः ॥
ततः सुताडिते सूत्रे चयं कुर्याद् विचक्षणः ।
द्विगुणां क्षेत्रमानस्य रज्जुं कृत्वा तदन्तयोः ॥
योऽसौ (?) कार्यौ ततस्तस्याः पादोनक्षेत्रमानतः ।
दद्यान्निरिञ्छिन्नं कीलौ क्षेत्रगर्भान्तगामिनौ ॥
निधाया (याः?य) सकौ तस्याः प्रान्तस्थौ योजयेत्तयोः ।
निरञ्छनाभिकृष्टायां पादोनक्षेत्रसंमितम् ॥
भुजगतया भवेद् रज्जुस्तस्यामिष्टानुमानतः ।
चिह्नं दद्यात् स कर्णः स्यादेवं दोषान् प्रसाधयेत् ॥

कुड्य-चयन-दोषाः ४१. ५.. २०॥ दक्षिणं तु यदा कुड्यं विचिनोति वहिर्मुखम् ।
तदा व्याधिभयं विद्यान्मृत्युदण्डं च निर्दिशेत् ॥
पश्चिमं तु यदा कुड्यं विचिन्वन्ति वहिर्मुखम् ।
धनहानिं तदा विद्याद् दस्युभ्यश्च भयं भवेत् ॥
उत्तरं तु यदा कुड्यं विचिनोति वहिर्मुखम् ।
कर्तारं स्वामिनं वापि व्यसनं प्रापयेत् तदा ॥
प्राच्यं वहिर्मुखं कुड्यं चिनोति स्थपतिर्यदा ।
राजदण्डभयं तत्र निर्दिष्टव्यं विचक्षणैः ॥
एतदेव फलं ब्रूयात् पतिते दलिते तथा ।
यस्य प्राग्दक्षिणः कर्णः प्रवर्तेत वहिर्मुखः ॥
स्यात् तत्राग्निभयं घोरं गृहभर्तुश्च संशयः ।
गच्छेद् वहिर्मुखः कर्णो यदा दक्षिणपश्चिमः ॥
कलहोपद्रवस्तत्र स्याद् भार्यायाश्च संशयः ।
पश्चिमोत्तरकर्णे तु सम्प्रयाते वहिर्मुखे ।

पशुवाहनपुत्राणां संशयस्तत्र जायते।
प्रागुत्तरो यदा कर्णः प्रचीयेत वहिर्मुखः॥
गुरूणां संशयस्तत्र गोवृषादेश्च जायते।
विशालं यदि जायेत सर्वबाहुषु चिन्वतः॥
कर्णिकासमसंस्थानं तद् भद्रमल्लिकाकृति।
न तादृशो भवेदायस्तत्र यादृग् व्ययो भवेत्॥
चयस्य तस्य दोषेण गृ (हि?ही) क्षीणः प्रजायते।
चिन्वतो यदि संक्षिप्तमन्त्यर्थं तत्र जायते॥
ब्रह्मसंज्ञं तदुद्दिष्टं तत्र राजभयं भवेत्।
विस्तृतं यदि बाह्येषु संक्षिप्तं चैव मध्यतः॥
तनुमध्यं तदुद्दिष्टं तत्र विद्यात् क्षुधो भयम्।
तच्छिद्रं यदि कर्णेषु परिहीणं च मध्यतः॥
निर्णतं नाम तद् विद्यात् तत्र चौरभयं भवेत्।
कर्णेषु परिहीणं चेदुच्छ्रितं चापि मध्यतः॥
कूर्मोन्नतमिति ज्ञेयं सर्वदोषभयावहम्।
विषमोन्नतकर्णेषु निर्दिशेद् प्रविलक्षयम्॥
प्राव्यान्तपातं तद् विद्यात् समेषु विहितेषु च।
इत्येते चीयमानस्य गुणदोषाः प्रकीर्तिताः॥
तस्मात् सर्वप्रयत्नेन चयकर्म प्रयोजयेत्॥

भवन-भूषायां—प्रयोज्याप्रयोज्यानि—स० सू० ३४. १-२३॥

(अ) अप्रयोज्यानि राज्ञां सेनापतीनां च वणिजामपि वेश्मसु।
यदि वा वास्तुकलासु सभादेवकुलेषु च॥
शयनासनयानेषु भाजनाभरणेषु च।
छत्रध्वजपताकासु सर्वोपकरणेषु च॥
अप्रयोज्यानि यानि स्युः प्रयोक्तव्यानि यानि च।
विस्तरात् तानि कथ्यन्ते हितार्थमथ देहिनाम्॥
पूर्वोक्तानां नृपादीनां यानि वेश्मसु केवलम्।
अप्रयोज्यानि तान्येव पूर्वमत्राभिदध्महे॥
तेषु नैव प्रयोक्तव्याः समस्ता अपि देवताः।
दैत्या ग्रहास्तथा तारा यक्षगन्धर्वराक्षसाः॥
पिशाचाः पितरः प्रेताः सिद्धविद्याधरोरगाः।
चारणा भूतसंघाश्च तेषां योषाः सुतास्तथा॥
प्रतीहाराः प्रतीहार्यस्तेषामाविकृताश्च ये।
आयुधानि तदीयानि सर्वे चाप्सरसां गणाः॥

दीक्षितव्रतिपाषण्डिनास्तिकाः क्षुत्प्रपीडिताः।
व्याधिबन्धनशस्त्राग्नितैलासृक्पङ्कपांसुभिः ॥
शूलज्वरादिभिश्चार्ता येऽन्येऽप्येवंविधा नराः।
मत्तोन्मत्तजडक्लीबनग्नान्धबधिरादयः ॥
दोलाक्रीडाश्च नेष्यन्ते ग्रहणानि च दन्तिनाम्।
देवासुराद्याः सङ्ग्रामा विग्रहाश्च महीक्षिताम् ॥
प्राणियुद्धविमर्दाश्च मृगया च न शस्यते।
रौद्रदीनाद्भुतत्रासबीभत्सकरुणा रसाः ॥
न प्राणिषु प्रयोक्तव्या हास्यशृङ्गारवर्जिताः।
हस्त्यश्वरथयानानि विमानायतनानि च ॥
चण्डानलप्रदीप्तानि भवनानि वनानि च।
वृक्षा पुष्पफलैर्हीना विहगावासदूषिताः ॥
एकद्विशाखा रूक्षाश्च भग्नाः शुष्काः सकोटराः।
कदम्बशाल्मलीशेलुतारखारलुकादयः ॥
भूतालयत्वान्नेष्यन्ते कटुकण्टकिनश्च ये।
गृध्रोलूका विहङ्गेषु कपोतश्येनवायसाः ॥
कङ्कश्चेति न शस्यन्ते खगा रात्रिंचराश्च ये।
गजाश्वमहिषाश्चोष्ट्रा मार्जारखरवानराः ॥
सिंहो व्याघ्रस्तरक्षुश्च वराहमृगजम्बुकाः।
तथा वनचरा ये च क्रव्यादा मृगपक्षिणः ॥
गृहेष्वेते न कर्तव्याः शैलाटव्याश्रिताश्च ये।
अमीषां करणादेवैराचार्यो विप्रमुच्यते ॥
व्याधिं घोरमवाप्नोति व्यसनं बन्धमेव च।
यत्र तत्र गृहस्वामी धनहानिं पराजयम् ॥
प्रवासं बन्धनं नाशं मृत्युं वा क्षिप्रमाप्नुयात्।
इत्युक्तान्यप्रशस्तानि गृहेषु गृहमेधिनाम् ॥

(ब) प्रयोज्यानि

तत्र यानि प्रयोज्यानि कथ्यन्ते तान्यतः परम्।
यस्य यत्र भवेद् भक्तिर्या चास्य कुलदेवता ॥
हस्तक्लृप्तप्रमाणेन तान् कुर्वन् स्यान्न दोषभाक्।
तद्द्वारपार्श्वयोः कार्यौ प्रतीहारौ स्वलङ्कृतौ ॥
वेत्रदण्डव्यग्रकरौ खड्गकोशपरिच्छदौ।
रूपयौवनसम्पन्नौ विचित्राम्बरभूषणौ ॥
धात्री वामनिका कुब्जा सखीभिः परिवारिता।
विदूषकैः कञ्चुकिभिस्तुष्टैरनुगतास्तथा ॥
द्वारस्योभयतः कार्याः प्रतीहार्यो मनोरमाः।

निधयश्चानुरूपाश्च शङ्खाब्जोज्ज्वललक्षणाः ॥
रत्नदीनारराशींश्च वहन्तो वदनोद्गतान् ।
पद्मस्था पूर्णकुम्भा वा रत्नवस्त्रविभूषिता ॥
वक्रैरूर्ध्वस्थितैः पुष्पफलपल्लवसम्भृतैः ।
पूर्णकुम्भाङ्कुशच्छत्रश्रीवृक्षादर्शचामरैः ॥
कार्याष्टमङ्गला द्वारे दामभिः शङ्खमत्स्ययोः ।
द्वारमण्डलमध्यस्था स्नाप्यमाना गजोत्तमैः ॥
पद्मासना पद्महस्ता श्रीश्च कार्या स्वलङ्कृता ।
वृषः सवत्सा धेनुर्वा सच्छन्नस्त्रग्विभूषणा ॥
फलभक्तैर्बहुविधैराहारार्थं निवेदितैः ।
नानापुष्पफलैर्नम्रैः शालैस्तिर्यगवस्थितैः ॥
चित्रा पत्रलता लेख्या बाह्याभ्यन्तरभित्तिषु ।
हंसकारण्डचक्राह्वैर्बिसिनीपत्रवर्तिभिः ॥
कुमारकैश्च क्रीडद्भिर्युक्ता ललितबाहुभिः ।
वासधाम्नि निवेश्यन्ते विचित्राभरणाम्बराः ॥
रतिक्रीडापरा नार्यो नायकस्तु यदृच्छया ।
आपाण्डुदेहच्छवयः स्वल्पचारुविभूषणाः ॥
किञ्चित्प्रतनुभिर्गात्रैः कार्याः सुरतलालसाः ।
प्रवृद्धशाखाविटपैः प्रचलारुणपल्लवैः ॥
चम्पकाशोकपुन्नागनागाम्रतिलकादिभिः ।
छायापुष्पफलोपेतैः वृक्षैरन्यैश्च भूषिताः ॥
उद्यानभूमयः कार्याः कूजत्पिकमधुव्रताः ।
ऋतवः फलपुष्पाद्यैः स्वैः स्वैश्चिह्नैरलङ्कृताः ॥
मनोरमैर्विशेषैश्च खगैश्च समयोचितैः ।
कादम्बकुररक्रौञ्चहंससारसमेखलाः ॥
तीरान्तोद्गतवानीरकेतकीषण्डमण्डिताः ।
जलान्तर्लीनमत्स्यैश्च सञ्छन्ना नलिनीवनैः ॥
लेख्याश्च गृहभित्तीनामधोभागेषु दीर्घिकाः ।
फलैः समं सभक्ष्यैस्तु मणिकाञ्चनभाजनैः ॥
विन्यस्तपद्मिनीपत्राः सोत्पलाः पानभूमयः ।
विचित्रातोद्यहस्ताश्च नृत्यगीतविचक्षणाः ॥
मुदिता ललना लेख्याः प्रेक्षासंगीतभूमिषु ।
प्रकल्प्याः पञ्जरस्थाश्च चकोरशुकसारिकाः ॥
प्रहृष्टाः परपुष्टाश्च मयूराश्च सकुक्कुटाः ।
इति यानि प्रदिष्टानि प्रयोक्तव्यानि वेश्मनि ॥

तानि सर्वाणि शस्तानि सर्वोपकरणेष्वपि ।
देवयोनिगणास्तद्वत् पुरुषाश्च विनिन्दिताः ॥
साक्रन्दाश्च न शस्यन्ते पीठशय्यासनादिषु ।
पुरस्तात् कीर्त्तितान्यत्र प्रयोक्तव्यानि यानि च ॥
तानि शस्तानि कक्षासु सभादेवकुलेषु च ।
दिव्यमानुषसम्बद्धान्यनेकाख्यायिकादिषु ॥
प्रोक्तानि तानि तावन्ति शुभान्यालेख्यकादिषु ।
इति कथितमयोज्यं योजनीयं च बुध्वा,
भवनशयनकक्षादेवधिष्ण्यादिकेषु ।
विरचयति यथोक्तं निन्दितं वर्जयेद् यः,
स भवति नृपतीनां शिल्पिनां चार्चनीयः ॥

भवन-दोषेषु—द्वारगुणदोषाः:—

निवेशाः
स० सू० ३६, २-६

उत्संगो हीनबाहुश्च पूर्णबाहुस्तथापरः ।
प्रत्यक्षायश्चतुर्थश्च निवेशाः परिकीर्तिताः ॥
गुणदोषान् प्रवक्ष्यामि द्वाराणां सर्ववास्तुषु ।
सुस्थितं चतुरश्रं च कान्तं स्वद्रव्ययोजितम् ॥
ऋजु स्वकीयदिग्भागे नह्रस्वं न तथोच्चकैः ।
नाल्पं न कुब्जं नाप्यतिपिण्डितं न वहिर्गतम् ॥
नाध्मातं न कृशं मध्ये गतं नान्तर्कुक्षिषु ।
न विद्रुतं न संक्षिप्तं यत् तत् स्याद् द्वारमृद्धिदम् ॥
भल्लाटे धनदे यद्वा चरके पृथिवीधरे ।
ब्राह्मणस्य भवेद् वेश्म माहेन्द्रद्वारमुत्तमम् ॥
माहेन्द्रेऽर्केऽथ सत्ये वा आर्यके वा निकेतनम् ।
कार्यं गृहक्षतद्वारं क्षत्रियस्य शुभावहम् ॥
याम्ये वैवस्वते वापि गान्धर्वेऽथ गृहक्षते ।
वैश्यस्य भवनं कार्यं द्वारं पुष्पाह्वये शुभम् ॥
वारुणे पौष्पदन्ते वा यद्वा मैत्रेऽथवासुरे ।
शूद्रस्य सदनं कार्यं भल्लाटद्वारमुत्तमम् ॥
विप्राणां प्राङ्मुखं वास्तु गृहं स्याद् दक्षिणामुखम् ।
वर्धते धनधान्येन पुत्रपौत्रैश्च नित्यशः ॥
दक्षिणाभिमुखं वास्तु भवनं पश्चिमामुखम् ।
क्षत्रियस्य धनं धान्यं विक्रयश्चेह वर्धते ॥
वास्तुनः पश्चिमं द्वारं भवनस्योत्तरामुखम् ।
तत्रैधते धनैर्धान्यैः पुत्रपश्वादिभिश्च विट् ॥

वास्तु स्यादुत्तरद्वारं गृहं पूर्वामुखं तथा।
शूद्रस्य कर्मवृत्तिस्तु धनधान्यैर्विवर्धते॥
यस्यां भित्तौ कृतं पूर्वं तस्यामुपरि कारयेत्।
तथान्यभित्तौ तद्द्वारं विधातव्यं प्रदक्षिणम्॥
न मध्ये सद्मनो द्वारं कुर्यादेव पदस्य च।
न स्थूले (?) न पदेनापि सिरापाते तदिष्यते॥

भवनदोषाः
स० सू०
४८, ६१–१०५:

कृशं विकृतमत्युच्चं करालं शिथिलं पृथु।
वक्रं विशालमुत्तानं (शु?स्थू) लाग्रं ह्रस्वकुक्षिकम्॥
स्वपादचलितं ह्रस्वं हीनकर्णं मुखानतम्।
पार्श्वगं सूत्रमार्गाच्च भ्रष्टं द्वारं न शोभनम्॥
तत् करोति क्षयं घोरं विनाशं स्वामिसम्पदः।
वसतां कलहं नित्यमतस्तत् परिवर्जयेत्॥
अन्तर्द्वाराद् बहिर्द्वारं नोच्चं कुर्यान्न सङ्कटम्।
उच्चं विसङ्कटं वापि तच्छ्रिवाय न जायते॥
पट्टसन्धिर्यदा मध्ये द्वारस्य स्यात् कथञ्चन।
कर्तुस्तदा विनाशः स्यात् कुलस्य च परिक्षयः॥
तुला उपतुला वा स्युर्द्वारि तिर्यग् यदा कृताः।
दारिद्र्यव्याधिसन्तापा भवन्ति स्वामिनस्तदा॥
अनुवंशमनुप्राप्ता जयन्त्यो यदि मन्दिरे।
वित्तायुषोस्तदाल्पत्वमनारोग्यं च जायते॥
उदुम्बरे (वि) निहिता (नि?) ललाटी नाम सा तुला।
दूषणं मरणं वापि कन्यानां विदधाति सा॥
उत्तराङ्गोदरे न्यस्ता ललाटेन समा यदि।
तुला ललाटिका सापि कुलक्षयकरी भवेत्॥
तुलापिण्डेन विन्यस्ता ज्ञेया यज्ञोपवीतिनी।
वसतो व्यसनं कुर्यात् कुटुम्बस्यासुखं च सा॥
यदि भारतुलैकापि मध्ये विद्धा कथञ्चन।
तदा वराङ्गं भज्येत धनं च परिहीयते॥
भित्तिभेदो न कर्तव्यस्तुलाग्रैरखिलैरपि।
कुर्याद् ब्रह्मपदन्यस्तो भारपट्टः कुलक्षयम्॥
अयुक्तयोर्युक्तयोर्वा सन्धिश्चेद् भारपट्टगो।
सन्धौ स्यात् तत् सुतो ज्येष्ठः कर्तुश्चापि विनश्यति॥
अनुवंशं न भुञ्जीत न शयीत कदाचन।
भुञ्जानस्यार्थनाशः स्याच्छयानस्य महारुजः॥
नाशोऽनुवंशे रोगाः स्युस्तिर्यक्स्थे रक्षसो भयम्।

शयनागारविन्यस्ते मरणं नागदन्तके ॥

अन्यदोषाः — अतः परं गृहादीनामप्रशस्तसमुच्छ्रितम् ।
क्रियते कथितं यस्मादेकत्र सुसमं भवेत् ॥

प्लव दोषाः स० सू० ४८. १–४
रक्षोम्बुनाथकीनाशमरुद्दहनदिक्प्लवा ।
मध्यप्लवा च भून्यधिदारिद्र्यमर्कावहा ॥
वह्निप्लवा वह्निभिये मृतये दक्षिणप्लवा ।
रुजे रक्षःप्लवा प्रत्यक्प्लवा धान्यधनच्छिदे ॥
कलहाय प्रवासाय रोगाय च मरुत्प्लवा ।
मध्यप्लवा तु भूमिर्या सर्वनाशाय सा भवेत् ॥

दुष्टभवनानि ४८. ११–१३
वलितं चलितं भ्रान्तं विसूत्रं च समुत्सृजेत ।
यत् स्यान्मुखविनिष्क्रान्तं वलितं तत् प्रकीर्तितम् ॥
चलितं पृष्ठनिष्क्रान्तं दिङ्मूढं भ्रान्तमुच्यते ।
विसूत्रं कर्णहीनं स्यात् फलमेषां प्रचक्ष्महे ॥

तत्फलानि
वलिते चलति स्थानं चलिते विग्रहो भवेत् ।
भ्रान्तं योषिद्विनाशाय विसूत्रं भूरिशत्रुकृत् ॥
अन्यपृष्ठस्थितद्वारं वेश्म खादकमुच्यते ।
परस्परविरोधाय तद् वेश्म गृहिणोस्तयोः ॥
उच्चच्छायं छिद्रगर्भं भ्रमितं वमितं मुखे ।
हीनमध्यं नष्टसूत्रं शल्यविद्धं शिरोगुरु ॥
अट्टालिन्दकशोभं च विषमस्थं तुलातलम् ।
अन्योन्यद्रव्यविद्धं च कुपदप्रविभाजितम् ॥
हीनभित्त्युत्तमाङ्गं च विनष्टं स्तम्भभित्तिकम् ।
भिन्नशालं त्यक्तकण्ठं निष्कन्दं मानवर्जितम् ॥
विकृतं च गृहं भर्तुरनिष्टफलदायकम् ।
तस्माद् दोषानिमांस्त्यक्त्वा गृहं कुर्याच्छुभावहम् ॥

भङ्गः ४६. १–५
पुरातनं नवं वापि कृतं वाथार्धनिर्मितम् ।
देवतानां कृपाणां च तोरणं निपतेद् यदि ॥
भज्यते दह्यते वाथ नमते सज्जतेऽथवा ।
दवविद्युज्जलाद्यैर्वा हन्यते तत् कदाचन ॥
तत्र दोषान् प्रवक्ष्यामो दोषप्रशमनानि च ।
तोरणं निपतेत् सर्वं शिरो वास्य कथञ्चन ॥

तत्फलम्
राज्ञां सेनापतीनां च प्रतीहारपुरोधसाम् ।
प्रधानाश्वगजानां च विप्रपौरजनस्य च ॥
तत्र मृत्युभयं विद्याद् दुर्भिक्षं चापि निर्दिशेत् ।
तस्मात्प्रशमहेत्वर्थं विधिं कुर्यादिमं बुधः ॥

वेधः स०-सू० १८.८३-८८॥	प्रवासो भृत्यजो द्वेषो विद्धे चत्वररथ्यया। नाशं द्रव्यं ध्वजाविद्धं वृक्षेण शिशुदूषकम्॥ पङ्कविद्धं भवेच्छोकः सलिलस्राविणि व्ययः। कूपेन विद्धेऽपस्मारो विनाशो दैवतेन च॥ स्तम्भेन दूषणं स्त्रीणां ब्रह्मणा तु कुलक्षयः। मानादभ्यधिके द्वारे राजतो जायते भयम्॥ व्यसनं मानतो हीने चौरेभ्यश्च भयं भवेत्। व्याधयः श्वभ्रविद्धेन धनस्य च परिक्षयः॥ देवध्वजेन वन्धः स्यात् सभयैश्वर्यसंक्षयः। सन्निपातभयं वाप्या तुल्या दृष्टत्वमाकृते?॥ हृद्रुक् कुलालचक्रेण दारिद्र्यं वारिणा भवेत्। व्याधिरुक् कचकूटेन आपाकेन सुतक्षयः॥ नि (श्व?स्व) तोलूखलेन स्याच्छिलया चाश्मरी भवेत्। तोयभाण्डेन दुर्मन्त्री भस्मना चार्शसो गृही॥ दारिद्र्यं छायया विद्धे भवेद् द्वारे कुटुम्बिनः। स्थलस्यन्दनवल्मीकैर्विदेशगमनं भवेत्॥

टि०—तोरणभङ्गः शान्तिकर्म च विस्तरेण समराङ्गण-सूत्रधारे षट्चत्वारिंशे द्विचत्वारिंशे चाध्याययोः द्रष्टव्ये; अत्र तु संक्षेपेणैव किमपि दीयते :—

तोरणभङ्गः स० सू० ४६. १–४	पुरातनं नवं वापि कृतं वाथार्धनिर्मितम्। देवानां नृपाणां च तोरणं निपतेत् यदि॥ भज्यते दह्यते वाऽथ नमते सज्जतेऽथवा। दवविद्युज्जलाद्यैर्वा हन्यते तत् कदाचन॥ तत्र दोषान् प्रवक्ष्यामि दोषप्रशमनानि च। ... ...
कपोतप्रवेशः स०सू० ४६. १८–२०	प्रासादे वा गृहे वापि कपोतः प्रविशेद् यदि। तत्र दोषाः प्रपद्यन्ते शान्तिकर्म तथैव च॥ कालमूर्तिः कपोतश्च पापमूलकरण्डकम्। विहङ्गापसदो हीनः कृष्णचारी विहङ्गमः॥ चतुर्विधः समाख्यातो मुनिभिः स तपोधनैः। श्वेतो विचित्रकण्ठश्च विचित्रोऽथ च कृष्णकः॥
गृहदारुभङ्गशान्तिः स० सू० ४२. २५-३०	भङ्गे गृहाणां दारूणां शान्तिहोमोऽथ कथ्यते। इन्द्रकीलो महाकूटः पृष्ठवंशोत्तरौ धरौ॥ प्रग्रहोऽलिन्दपादौ वा स्वामिनं घ्नन्त्युपद्रवाः। तुलास्थपत्यः (?) कूटं वा वेदिका कर्णपालिका॥

टि०—अवशिष्टं ग्रन्थे परिशीलनीयम्।

चतुर्थः खण्डः

राज निवेशोचितभवनासन शय्यायन्त्रादि लक्षणम्

प्रथमः पटलः

(राज-निवेशे)

राज-भवन-लक्षणम्

सामान्य-निवेशः
वि० वा०
१२. १–१६

प्रशस्ता चतुरश्रा भूर्भूमिपानां विशेषतः।
पुरस्य मध्यभागे वा निर्दिष्टे वा स्थलोत्तमे।
नृपहर्म्यं प्रकर्तव्यं तल्लक्षणमनोहरम्।
गभीरपरिखोपेतं द्वारोपद्वारशोभितम्॥
चूलीहर्म्यसमायुक्तं पङ्क्तिशालाभिरन्वितम्।
पञ्चाशद्दण्डमानादि दण्डपञ्चशतावधि॥
प्रमाणमिह निर्दिष्टं भूमिपालस्य मन्दिरे।
अथवा भागमानेन कारयेन्नृपमन्दिरम्॥
सूर्यैकं वारुणैकं वा तस्य मानमुदीरितम्।
एकाननं वा द्विमुखं चतुराननमेव वा॥
सेपे वा वह्निभागे वा मन्त्रिहर्म्यं प्रकल्पयेत्।
आकाशे वाथ पवने सेनानाथस्य मन्दिरम्॥
प्रासादभित्तिमभितो बहिर्वा तच्च कल्पयेत्।
पुरोहितादिनिलयैस्सहितं वा विशेषतः॥
द्वितीयावरणे वापि तृतीयावरणेऽपि वा।
भूधरे रुद्रके भागे न्यायशाला विधीयते॥
ईशाने देवतागारं सावित्रे कोशमन्दिरम्।
मित्रभागे महेरणस्थानमुक्तं मुनीश्वरैः॥
मध्यभागे राजवेश्म नवसौधतलावधि।
नानाशालासमोपेतं कूटकोष्ठाद्यलङ्कृतम्॥
शिखरावलिसंदर्श्यं कल्पनाशतशोभितम्।
वातायनशतोपेतं मध्यचत्वरमण्डितम्।
पाञ्चाली मागधी चान्या शौरसेनी च वाह्लिकी।
कौसली चापि कालिङ्गी द्राविडीति क्रियाकला॥
प्रसिद्धा शिल्पकार्येषु कल्पनाशतशोभिनी।
देशभेदेन नृपालः स्वेच्छया तां समाश्रयेत्॥
सोमे वा दन्त्वके भागे भोजनागारमीरितम्।

विशालमापभागे वा कल्पयेच्छिल्पकर्मवित् ॥
किन्नरे भास्करे वाऽथ विहारस्थलमिष्यते ।
तत्रैवोद्यानभूमिश्च निर्दिशेत्तुष्टिहेतवे ॥
गान्धर्वे वारणस्थानं पुष्पके वाजिमन्दिरम् ।
भृङ्गराजकभागे च भिषक्शालादयो मताः ॥

अन्तः पुरम्
वि० वा०
१६. १–१०

यशोधनं कलत्रञ्च रक्षणीयं महीभुजा ।
तत् कोशरत्नजनकमनर्घं कथितं बुधैः ॥
तस्मात्तद् बहुधा रक्ष्यं सयत्नेन महीभुजा ।
प्राकारावृतहर्म्यान्तस्तत्स्थलं कार्यमीरितम् ॥
आपदेवस्य भागे वा वारुणे वा विशेषतः ।
चतुरश्रं दैर्घ्ययुतमथवा तत्प्रकल्पयेत् ॥
दण्डद्वादशवैशाल्यमण्डलाकारमध्यभाक् ।
त्रिभौमः पञ्चभौमो वा मध्ये वा स्थलसंयुतः ॥
मध्याधिष्ठानसंक्लृप्तश्चोपशालावृताङ्गणः ।
तद्भागे क्रीडनस्थानं कल्पयेद्बहिरेव वा ॥
द्वारोपद्वारसंयुक्तः केसरक्रियया युतः ।
मध्यागारविनिष्क्रान्तकल्पनेन समन्वितः ॥
लक्ष्म्यादिलसितद्वारो बहुचित्रमनोहरः ।
शुद्धान्तो रक्षणोपेतः कार्यो भूपालसिद्धये ॥
कौबेर्यां भूषणं प्रोक्तं वारुणे वस्त्रकादिकम् ।
दक्षिणस्यां गन्धमाल्यं पूर्वे भोजनमीरितम् ॥
गन्धर्वदेवचित्राढ्यं कल्पयेच्छिल्पकोविदः ।
तटाकमथवा वापीं तत्पार्श्वे कल्पयेद्बुधः ॥
चेटीनां वासभवनैरन्वितश्च समन्ततः ।
वातायनशतोपेतो वितानादिभिरन्वितः ।
कलशादिसमोपेतः कल्पनीयो मनोहरः ॥

तत्रैव गवाक्षाः यथा
१६. ११–२०

भूपतेस्तु महिष्या वा तुष्ट्यर्थं कल्पनं वरम् ।
कल्पनीयं शिल्पधिया कल्पसूत्रविधानतः ॥
विहारमण्टपो वाऽपि महाशालाऽथवा मता ।
चतुरश्रं भानुदण्डमथवा तत्कलान्वितम् ॥
मध्यकल्पनसंयुक्तं वितानादिमनोहरम् ।
पञ्चभौमं सप्तभौमं नवभौममथापि वा ॥
सोपानपङ्क्तिसंवीतकूपनिर्माणभासुरम् ।
चित्रतोरणयुग्द्वारचतुष्केनान्वितं तथा ॥
आलोकपालिकायुक्तं तत्रस्थं तु गवाक्षकम् ।

पद्मपत्रगवाक्षं वा गजनेत्रगवाक्षकम् ॥
छटागवाक्षमथवा धेनुपादगवाक्षकम्।
मृगीनेत्रगवाक्षं वा पारावतगवाक्षकम् ॥
शुकनासागवाक्षं वा बहुरन्ध्रगवाक्षकम् ।
तुरगास्यगवाक्षं वा कल्पयेत्तत्र शिल्पवित् ॥
मुखभद्रैर्नागभद्रैश्चतुर्भद्रैर्युतं तु वा ।
अयःकीलयुतं वाऽथ शिलापट्टयुतं तु वा ॥
दृढसन्धानसंयुक्तं दृढकल्पनमेदुरम् ।
युक्त्या शिल्पवशात्सर्वं शुद्धान्ते चाथ हर्म्यके ॥
चूलीहर्म्येषु सदनेष्वपि मानवसद्मसु ।
प्रासादे विविधे रम्ये शालास्वपि च तन्नयेत् ॥

राजवेश्म सामान्यनिवेशः स० सू० १४. १-१६

कृते पुरनिवेशेऽथ चतुःषष्टिपदाश्रये ।
नियुक्तपरिखासालगोपुराट्टालकेऽपि च ॥
विभक्तरथ्ये परितः प्रविभाजितचत्वरे।
क्रमादन्तर्बहिः क्लृप्तदेवतायतनस्थितौ ॥
प्रागुदक्प्रवणे देशे प्राग्द्वारास्युन्नतेऽथवा ।
यशःश्रीविजयाधायि मैत्रं पदमधिष्ठितम् ॥
यथावर्णक्रमायातं चतुरश्रं समं शुभम् ।
पुरमध्यादपरतो दिक्स्थं कुर्यान्नृपालयम् ॥
दुर्गेषु भूवशात् कार्यं यद्वा दिक्ष्वपरास्वपि ।
विवस्वद्भूधरार्यम्णां कार्यमन्यतमे पदे ॥
त्रिचत्वारिंशता युक्ते ज्येष्ठं स्याद् द्वे धनुश्शते।
मध्यं शतं तु द्वाषष्टिः शतं साष्टकमन्वितम् ॥
ज्येष्ठे पुरे विधातव्यं ज्येष्ठं राजनिवेशनम् ।
मध्यमे मध्यमं कार्यं कनिष्ठं च कनीयसि ॥
प्राकारपरिखागुप्तं चारुकान्ति समन्ततः ।
तमङ्गभ्रमनिर्यूहसुदृढाट्टालिकान्वितम् ॥
एकाशीत्या पदैर्भक्तं विधेयं नृपमन्दिरम् ॥
राजमार्गं समाश्रित्य वास्तुद्वारमुदङ्मुखम् ॥
युक्त्यानयैव कर्तव्यमन्यदिक्संश्रयेऽपि च।
भल्लाटपदवर्त्यस्य गोपुरद्वारमिष्यते ॥
तत्पुरद्वारविस्तारोच्छ्रायसम्मितमिष्टदम् ।
महेन्द्रं द्वारमिच्छन्ति निविष्टस्य महीधरे ॥
वैवस्वते पुष्पदन्तमर्यम्णि च गृहक्षतम् ।
अन्येष्वेषामपरतः प्रदक्षिणपदेष्वथ ॥

अन्यान्यपि स्वासु दिक्षु द्वाराण्येवं प्रकल्पयेत् ।
आभिमुख्ये च सर्वेषां शस्यन्ते गोपुराणि च ॥
तदीयनगरद्वाराद् विंशत्यंशोज्झितानि वा ।
पञ्चद्वाराणि सुग्रीवे जयन्ते मुख्यनाम्नि च ॥
वितथेऽथ भ्रमांस्तद्वद् विदधीत प्रदक्षिणान् ।
वास्तौ विभक्ते पुरवत् क्लृप्तेऽमरपदव्रजैः ॥
तत्र मैत्रपदस्थाने निवेशाय।वनीपतेः ।
प्रासादः प्राङ्मुखः कार्यो यथावत्पृथिवीजयः ॥

प्रमुखराजभवनानि स० सू० १५.१७

श्रीवृक्षं सर्वतोभद्रं मुक्तकोणमथापरम् ।
अभिच्छेन्नृपतिः कुर्यात् प्रासादं शुभलक्षणम् ॥

राज-भवने विविधाः निवेशाः स० सू० १८-२०॥

शालापरिक्रमोपेतकर्मान्तैरपि चान्वितम् ।
तत्र प्राच्यां भवेद् गेहमादित्यपदसंश्रितम् ॥
धर्माधिकरणं सत्ये व्यवहारेक्षणाय च।
भृशे च कोष्ठागारं स्यादम्बरे मृगपक्षिणाम् ॥
अग्नेः ककुभमाश्रित्य कार्यं वायोर्महानसम् ।
सभाजनाश्रयं पूष्णि विदध्याद् भोजनास्पदम् ॥
सावित्रे वाद्यशाला स्यात् सवितृस्थाश्च वन्दिनः ।
कर्माणि वितथे कुर्यात् तद्योग्यान्यायुधानि च ॥
स्वर्णरूप्यादिकर्मान्तान् विदधीत गृहक्षते ।
याम्ये दक्षिणतो गुप्तिं कोष्ठागारं च कल्पयेत् ॥
प्रेक्षासंगीतकानि स्युर्गन्धर्वे वासवेश्म च ।
कार्या वैवस्वते शाला रथानां दन्तिनां तथा ॥
पश्चिमोत्तरभागस्थां वापीमपि च कारयेत् ।
या (यो?यु) सुग्रीवपदयोर्गन्धर्वस्य च वारुतः ॥
कुर्यादन्तःपुरस्थानं प्राकारवलयावृतम् ।
कुर्यात् तद्गोपुरद्वारमुदगास्यं जयाभिधे ॥
कार्यः स्थपतिना चैव प्रासादश्चापराङ्मुखः ।
क्रीडादोलालयान् भृंगे कुमारीभवनं तथा ॥
नृपान्तःपुरमिच्छन्ति मृगे पित्र्ये स्ववस्करम् ।
नृपस्त्रीणामुपस्थानगृहमिन्द्रपदे विदुः ॥
सुग्रीवपदसंसक्तमरिष्टागारमिष्टदम् ।
द्वास्थसुग्रीव पि(पूर्व?पूर्वा) शपश्चाद्वागे मनोहरा ॥
विधेयाशोकवनिका स्नानधारागृहाणि च ।
लतामण्डपसंयुक्ताः स्युरत्रैव लतागृहाः ॥
दारुशैलाश्च वाप्यश्च पुष्पवीथ्यः सुकल्पिताः ।

पुष्पदन्ते भवेद् य(त्त?न्त्र) कर्मान्तः पुष्पवेश्म च ॥
वरुणस्य पदे कुर्याद् वापीपानगृहाणि च ।
स्याद् कोष्ठागारमसुरे शोषे त्वायुधमन्दिरम् ॥
भाण्डागारं तु रौद्राख्ये विदध्यात् स्थपतिः श्रिये ।
उलूखलशिलायन्त्रभवनं पापयक्ष्मणि ॥
दारुकर्मान्तमप्याहुः श्रेयसे राजयक्ष्मणि ।
स्यादोषधेरधिष्ठानं रोगे दिशि नभस्वतः ॥
नागानां शस्यते स्थानं पदे नागस्य सूरिभिः ।
भवन्ति मुख्ये व्यायामनाट्यचित्रगृहाणि च ।
गवां स्थानं तथा क्षीरगृहं भल्लाटनामनि ।
उदक्प्रदेशे सौम्यस्य पुरोधःस्थानमिष्यते ॥
राज्ञोऽभिषेचनं चात्र दानाध्ययनशान्तयः ।
चामरच्छत्रधाम स्यान्मन्त्रवेश्म च भूधरे ॥
कार्यिणां चात्र कार्याणि स्थितः पश्येन्नराधिपः ।
विधेया मन्दुराश्वानामुत्तरं पार्श्वमाश्रिता ॥
महीधरपदस्यैव यथावद् दक्षिणामुखी ।
कार्या सर्वत्र चाश्वानां शाला राज्ञो यथागृहम् ॥
विशतो दक्षिणेन स्याद् वामेन च विषाणिनाम् ।
वेश्मानि राजपुत्राणां विदध्याच्चरकाभिधे ॥
अत्रैव विद्याधिगमशालाश्चैषां निवेशयेत् ।
नृपस्य मातुरदितिस्थाने कुर्यान्निवेशनम् ॥
पृथगत्रैव शिबिकाशय्यासनगृहं विदुः ।
नृपद्विपानां शस्ता स्यादापे सदनकल्पना ॥
अभिषेचनकं स्थानमिहैव स्याद् विषाणिनाम् ।
आपवत्सपदे हंसक्रौञ्च सारस नादिताः ॥
स्युः फुल्लाब्जवनाः स्वच्छसलिलाः सलिलाशयाः ।
पितृव्यमातुलादीनां कार्यं दितिपदे गृहम् ॥
अन्येषामपि चात्रैव सामन्तानां महीपतेः ।
ऐशान्यामनलस्थाने वोच्छ्रितस्तम्भवेदिकम् ॥
कार्यं देवकुलं चारु सुश्लिष्टमणिकुट्टिमम् ।
पर्जन्यस्य पदे होराज्योतिर्विद्गृहमिष्यते ॥
जये सेनापतेर्वेश्म विधेयं विजयप्रदम् ।
द्वारं प्राकारमाश्रित्य पदेऽर्यम्णः प्रशस्यते ॥
प्राग्दक्षिणाश्रितं शस्त्रकर्मान्तं शस्त्रमत्र च ।
विमुञ्चेद् ब्रह्मणः स्थानमिन्द्रध्वजयुतं नृणाम् ॥

तत्राशुभानि वेश्मानि निवेशाश्चासुखावहाः।
गवाक्षस्तम्भशोभिन्यो विधेयाश्चानुकामतः॥
सभा यथादिक्प्रभवा नृपवेश्माभिगुप्तये।
सर्वत्र नृपतेः सौधान् नृपसौधस्य सम्मुखा॥
पश्चाद्भागाश्रिता यद्वा शाला कार्या विषाणिनाम्।
इत्यास्पदं सुरपदास्पदकल्पमाद्य-
मेतद्यथावदनुतिष्ठति यः सदैव।
स क्ष्मामिमां भुजवलक्षपितारिपक्षः
सप्ताम्बुराशिरशनां नृपतिः प्रशास्ति॥

मान० ४१. ३८

इन्द्रे च वरुणे वापि सार्वभौमस्य हर्म्यकम्।
अथवार्यपदे चैव चतुर्दिक्षु विदिक्ष्वपि॥
यमे विवस्वति चापि चाधिराजस्य हर्म्यकम्।
भूधरे च कुबेरे च नरेन्द्रस्यालयं भवेत्॥
इन्द्रे चेन्द्रजयस्यांशे पार्ष्णिकस्य गृहं भवेत्।
अथवा पुष्पदन्तस्य पदे वासं प्रकल्पयेत्॥
रुद्रे रुद्रजये वापि चासुरस्य पदेऽथवा।
पट्टधृगालयं कुर्याच्छोषकस्य पदेऽपि वा॥
गृहक्षते च सवित्रे सावित्रस्य पदेऽपि वा।
मण्डलेशस्य हर्म्यं स्यात्पट्टभाक् चालयं तु वा॥
आपवत्सापवत्सस्य मृगे वा मुख्यकेऽपि वा।
प्राहारकाख्यग्राहयोश्चालयं परिकल्पयेत्॥
सर्वेषामपि भूपानां स्वनिर्याणि चतुष्टये।
गृहमेवं तु शालायां चोक्तमेवं पुरातनैः॥
सर्वेषां मूलहर्म्याणां पूर्वद्वारं प्रकल्पयेत्।
तत्तन्मूलस्य हर्म्यस्य दक्षिणे चोत्तरेऽपि वा॥
नैर्ऋत्ये वायवे चापि तत्तन्महिषिकागृहम्।
मूलहर्म्यस्य याम्ये तु चाभिषेकादिमण्डपम्॥
सुग्रीवे पुष्पदन्ते वा चायुधस्यालयं भवेत्।
असुरे शोषके वापि वस्तुनिक्षेपमण्डपम्॥
वरुणे नैर्ऋते वापि सुहुर्वस्त्रधनालयम्।
सोमे च मुख्यके वापि रत्नहेमादिकालयम्॥
गन्धर्वे भृङ्गराजे वा भूषणाश्रयमेव च।
दक्षिणे नैर्ऋते वापि भोजनार्थं तु मण्डपम्॥
तथेशानपदे वापि पचनालयमेव च।
अनिले चाग्निके वापि पुष्करिणीश्च कल्पयेत्॥

महिष्यावाससौम्ये कञ्चुकिनश्चालयं भवेत्।
वायव्येन वनाङ्गारे पुष्पमण्डपं योजयेत्॥
अदिते चोदिते वापि मज्जनालयमेव च।
तच्छालाह्वदेशे तु आयुधद्रव्यमण्डपम्॥
वायव्ये नैर्ऋते वापि सूतिकामण्डपं भवेत्।
पूष्णि वा वितथे चैव दासदास्यालयं भवेत्॥
गृहक्षतपदे चैव शयनालयमेव च।
मुख्ये वा चैवाथ भल्लाटे विलासिनीनां चालयम्॥
दौवारिकपदे चैव राजकन्यकालयम्।
द्वारस्य वामपार्श्वे तु गजाश्वादिकालयम्॥
द्वारस्य दक्षिणे पार्श्वे रथकावासमेव च।
मुख्यके चान्तरिक्षे च शौण्डिकालयमेव च॥
भृशे यानालयं कुर्याच्छेषं प्रागुक्तवद् भवेत्।
अन्तःशालमिति प्रोक्तं बाह्यशालमिहोच्यते॥
वरुणे युवराजस्य चालयं तत्प्रकल्पयेत्।
तत्पूर्वे चोत्तरे वापि तस्यैवानुचरालयम्॥
याम्ये च सोमदिशि वापि वायव्ये वाऽथ नैर्ऋते।
आस्थानमण्डपं कुर्यात्पुष्करिण्याश्च वायवे॥
नागस्य वामके याम्ये कुर्याद्रागमदेशकम्।
पुष्पोद्यानं ततः कुर्यान्मुख्ये भल्लाटकेऽपि च॥
नृत्तागारं ततः कुर्यान्नानानृत्ताङ्गनानि च।
आस्नार्थं मज्जनार्थं देवताहर्म्यसीमके॥
द्वितीये हर्म्ये याम्ये तु पुरोहितावासमेव च।
रोगे वा मुख्यके वापि व्यायामालयमेव च॥
द्वितीयशालबाह्ये तु द्वारं तस्य तु दक्षिणे।
महारङ्गालयं कुर्याद् भैत्रं तु बहिर्बहिः॥
ईशे तु वेणुशालाश्च द्वारं कुर्यान्महेन्द्रके।
पार्श्वके मेषशालाश्च मुख्यके वानरालयम्॥
सोमादीशानपर्यन्तं वाजिशालाः प्रकल्पयेत्।
याम्यादिशानकान्तं स्याद् गजशालां प्रकल्पयेत्॥
दक्षात्तु नैर्ऋत्यान्तं कुक्कुटालयमेव च।
वायुकोणादिमुख्यान्तं मृगाणां हरिणालयम्॥
सुग्रीवे पुष्पदन्ते च कल्पयेन्मल्लमण्डपम्।
उत्तरे भल्लाटके वापि चोत्तरे वायवे तथा॥
ईशे चोर्ध्ववेदिः स्याद्दिव्यदार्वाङ्गपान्वितम्।

परितः शूलकम्पं स्याद् द्वार तद्दक्षिणोत्तरे ॥
तत्पश्चिमदेशे तु युद्धलोकनमण्डपम् ।
आख्यालोकनार्थं स्यात् कुर्याद्युक्त्या च मण्डपम् ॥
वरुणे पुष्पदन्ते वा मेषयुद्धार्थमण्डपम् ।
मृगे च भृङ्गराजे वा कुक्कुटायुद्धमण्डपम् ॥
मण्डपाङ्गणमध्ये तु परितो मेखलायुतम् ।
एकद्वित्रिचतुष्पञ्चहस्तमूलाग्रविस्तृतम् ॥
सार्धद्विहस्तनिम्नं स्यात्सार्धार्धपरिवान्वितम् ।
दौवारिकपदे चैव मयूरालयमेव च ॥
द्वारस्य दक्षिणे वाह्ये व्याघ्रकालयमेव च ।
तद्बाह्ये तत्र देवानां किरातालयमेव च ॥
तृतीये वितथे तस्य रहस्यावासमण्डपम् ।
चतुर्थे यमदिग्भागे सन्धिविग्रहमण्डपम् ॥
षट्सभावरणे वापि दक्षिणे पश्चिमेऽपि च (वा) ।
उत्तरे पूर्वके वापि गजाश्वादिवाहनम् ॥
आख्यालोकनार्थं च मण्डपं परिकल्पयेत् ।
ईशे वा वितथे चैव रङ्गमण्डपमेव च ॥
भृशे वा चान्तरिक्षे वा कारागृहमेव वा ।
प्राकारस्य चतुर्दिक्षु द्वारगोपुरकान्वितम् ॥

अ० पु०
राजवेश्मनां
षड् भेदाः
६६, ३०–३४

माडश्च मौडः शुद्धश्च शिखरं च चतुर्थकम् ।
तुङ्गारः सिंहकश्चैव षड् भेदा राजवेश्मनाम् ॥
छाद्यघण्टाकुटैर्माडा मौडश्चोर्ध्ववरण्डिकः ।
वरण्डिकाः सर्वभूषु शुद्धो बाह्यचतुष्कतः ॥
माडच्छन्दो भवे भद्रे भूमिशृङ्गाणि सन्ति चेत् ।
तच्च मौडाभिधानं स्यात् प्रशस्तं राजवेश्मनाम् ॥
शिखरं शिखराकारं सुरसद्मादिसम्भवम् ।
भद्रे भद्रे तवङ्गानि तुङ्गारा द्विगुणं गताः ॥
सिंहावलोकनं कुर्यात् सिंहकर्णैर्विभूषितम् ।
एवं वै षड्विधं प्रोक्तं राजवेश्मसुखावहम् ॥

विविधवर्गीय-
राजवेश्ममालिका-
प्रकारः
६६, ३१–४४

मालिकानि यथोक्तानि कथयामि समासतः ।
द्विशतहस्तविस्तीर्णं पञ्चषष्टिकरोच्छ्रयम् ॥
द्वारं सप्तदशहस्तं मध्यमं रंग सत्करम्? ।
याम्ये परे उत्तरेषु उच्छ्रयति विंशतिकरैः? ॥
राजा वा चक्रवर्ती वा खण्डजा मण्डलाधिपाः ।
मुकुटध्वजा भूपालाः सामन्ता लघवस्तथा ॥

छत्रधाराः प्रतीहाराः खड्गधराश्चतुर्वराः।
वंशोपानद्धराश्चैव अङ्गरचाचतुलिका? ॥
सुभटैरभिभज्यन्ते साधु साधुजनाकुलैः।
राजगृहं सदासेव्यमीशस्य चामरैर्यथा ॥
दासीदासाः सूपकाराश्छत्रधाराश्चव्यञ्जनाः।
महिषी कुरुते देवी चामरधारी त्वमासन्ना? ॥
तथा च केशवन्धाश्च जातीचम्पकग्रन्थिकाः ॥
कुङ्कुमश्रीखण्डहस्ता उद्वर्तनोत्तरिनायिकाः ॥
अर्क्णौ? च त्रीमुने स सर्वे नेन्द्रीप्रतिचोरका? ।
इष्टराज्ञीं सदा ध्यात्वा मुनिषोडशां यथा? ॥
त्रिभूमिमध्यकर्त्तव्यामालिका क्रमतः स्थिता।
सूर्यवंशोद्भवा शैवा वतरन्ति यदा महीम् ॥
तेषां वेश्मानि कार्याणि नान्येषां तु कदाचन।
एव तु राजवेश्मानि कर्त्तव्यानि च सर्वदा ॥

राजभवन-निवेशः
७६. १-४०

चतुःषष्टिपदैर्भक्ते राजवेश्मनि वास्तुनि।
देववेश्मराजवेश्म मैत्रपदे समाश्रितम् ॥
प्रदक्षिणान्ते मार्गाच्च निवेशःस्यात्तु वेश्मनः।
गजस्कन्धसमोत्सेधा ? प्रथमा ह्युच्चरंगिका ॥
इन्द्रेन्द्रजयोर्मध्ये च राजमातुर्निवेशनम्।
रुद्रे रुद्रदासे चैव वेश्मनः पेटमादिकम् ॥
वेदात्वेन्द्रजयोर्मध्ये भ्रमणी पदमध्यगा।
राजभुवनस्यार्धे तु भ्रमणी मार्गनिर्गता ॥
तद्वीथ्यग्रसन्धौ च प्रतोलीः कारयेच्छुभाः।
कार्याश्च भ्रमणीमध्ये गजशालास्तथोत्तमाः ॥
पूर्वार्धे तु त्रिभिर्माडैः पङ्क्तिरेका तु संस्थिता।
अपरयाम्योत्तराणि? शालाकिन उदाहृताः ॥
तद्बाह्यतोऽन्तर्मार्गश्च कर्तव्यं शुभलक्षणम्।
महिषीगृहाल्पहीनं राजमातुर्गृहं भवेत् ॥
मैत्रान्ते पुरतो भागे द्वारगर्भस्तथान्तरे।
गोपुराकृतिः कर्तव्यो दृढार्गलसमन्वितः ॥
तत्सूत्रेण कृतं द्वारं राजमातुर्गृहात्परम्।
मैत्राग्निकर्णे कुर्याच्च सभामाडं सुशोभितम् ॥
सिंहासनसमायुक्ता याम्यस्या चोत्तरानना।
सिंहावलोकनयुक्ता महाराजसभा भवेत् ॥
सभामध्ये तु कर्त्तव्यं वेद्यां सिंहासनं महत्।

श्रीधरोद्भवमाडं च सुवर्णरत्नभूषितम् ॥
ब्रह्मस्थानार्थतः स्तम्भैः सिंहद्वारं गर्भोत्तरे ।
याम्योत्तरे तु कर्त्तव्या गजयुधा गजोत्तमा ॥
तदग्रे चाट्टालकानि प्राकारे स्याद्रथाकृतिः ।
राजगृहाद् द्वे प्रतोल्यौ प्राकारान्तर्विनिर्गते ॥
राजमातुः पटराज्ञ्याः प्राकारो गृहतो भवेत् ।
सिंहद्वारसमानान्यनेकद्वाराणि कारयेत् ॥
विवस्वत्पृथ्वीधरार्धे प्राकारः पूर्वनिर्गतः ।
ब्रह्मणोऽन्ते तु प्राकारो जयद्वारं गर्भोत्तरे ॥
तत्प्राकारमध्यकर्णे गजशालावुभौ मतौ ।
तस्य बाह्ये गृहमन्यत् राजपिण्डपाद्यादिकम् ॥
आपवत्समरीच्यर्धे राजवेश्म गृहोत्तमम् ।
कपिशीर्षयुतश्चैव प्राकारो वास्तुबाह्यतः ॥
पित्रग्नीशरोगकर्णेष्वट्टालकचतुष्टयम् ।
महाप्रतोल्या माहेन्द्रे गिरिसंस्था तथोत्तरे ॥
भास्वतो यमदिग्भागे समस्ता च वलूरिका ।
राजवेश्मान्तर्भागे च वाद्यशाला तथोत्तरा ॥
वितथे गिरिसंस्थाने रथरन्ध्राणि कारयेत् ।
गिरौ काष्ठगृहं चैव वितथे चाम्भसां गृहम् ॥
सुग्रीवनन्दिसन्धौ च युद्धद्वारं पराङ्मुखम् ।
असुरशेषसन्धौ च द्वारमम्भोगृहैर्युतम् ॥
सुग्रीवपुष्पदन्तयोर्वरुणासुरयोस्तथा ।
अश्वशाला द्वादशैव कर्तव्याश्च शुभोत्तमाः ॥
अर्धे तवङ्गनिष्कास? सैन्यविस्तरविस्तृतम् ।
प्राकारसमुत्सेधानि त्रिमाडानि तदूर्ध्वतः ॥
कार्यं दौवारिके भित्तं? गजस्कन्धसमोच्छ्रितम् ।
द्वाराग्रे तु भवेन्माडं मल्लैरग्रे तु युध्यते ॥
पूर्वापरद्वारद्वयं द्वात्रिंशत्स्तम्भभूषितम् ।
तद्वृत्तमाडं वृत्तं तु पञ्चविंशतिभिः करैः ॥
स्तम्भे स्तम्भे पताका च द्विजालोककलोद्भवम् ।
रक्तपुष्पसमाकीर्णे द्वारिके चतुरङ्गुलम् ॥
खड्गविद्याविरयुद्धं छुरिकायुद्धमुत्तमम् ।
तथैव मल्लयुद्धं च गात्रभङ्गैरनेकधा ॥
निरोदयते यतः सर्वं रूङ्गाद्यायोधनं तथा ।
एवं युद्धोद्भवा राजप्रसादे च महोत्सवाः ॥

नियन्त्रितोभयद्वारं मार्ड रश्माद्यमुन्नतम्।
भित्ते चापरद्वारणि कार्याणि चासुरोन्मुखम् ॥
वाह्यदेवपंक्ति मध्ये राजवेश्मान्तमार्गतः।
मुख्यभल्लाटसाम्येषु गजशालापङ्क्तिद्वयम् ॥
याम्योत्तरमुखं कार्यं प्रशस्तं कर्वकामदम् ।
सौम्यान्ते हस्तिनीवेश्म तद्द्वारमपरोन्मुखम् ॥
बुधे यमे च गन्धर्वे तद्रूपा च द्वितीयका।
शोषे क्षये च रोगे च कोष्ठागारं तथादिमम् ॥
पित्रिमृगभृङ्गेषु ? च कोष्ठागारं द्वितीयकम्।
गोष्ठागारं कार्यमित्थ प्रोक्तं च विश्वकर्मणा।
ईशादितिदितिषु च भाण्डागारमापार्धतः।
पुष्पागारं सवित्र्ये ह्यग्नौ भृत्यान्तरिक्षयोः ॥
तृणशाला कर्तव्या प्रशस्ता शुभकर्मणा।
पर्जन्यं चाधिकरणं राज्ञः कार्यं पराङ्मुम् ॥
शुभा प्रतोली माहेन्द्रे जये श्रीकरणादिकम्।
आदित्ये वप्रकरणं सन्मुखं श्रीकरादिषु ॥
धर्माधिकरणं सत्ये कर्तव्यं चापराङ्मुखम्।
कर्णोर्ध्वे भूमिकाश्चैव तदग्रार्धे चतुष्किका ॥
जयस्य बाह्यपक्षे तु कुर्यात् कारागृहं तथा।
कात्यायनी च माहेन्द्रे प्रतोल्याः पुरतो बधुः ॥
आदित्याग्रे च वाह्ये तु कुर्याद् द्वयकरणाद्यकम्? ।
रूपकं दुःसाध्यकानां चतुष्कं तु राजादिकम् ॥
मरीचिस्थगर्भोत्तरे देवी राजकुलार्चिता।
पृथ्वीजयाख्यः प्रासादस्तेजःप्रतापवर्धकः ॥

राज भवने—महीशानां त्रिविधा राजालयाः, महामण्डलेश्वर-राजगृह-प्रमाणम्, माण्डलिकस्य भवन-प्रमाणम्, महासामन्त-वेश्मप्रमाणम्, सामन्त-लघु-सामन्त-भवन-प्रमाणम्, स्वल्पराष्ट्रभवन-प्रमाणम्, दण्ड-नायक-मन्त्रि-द्वारपाल-पुरोहित-जनानां वेश्मप्रमाणम्, हस्तत एकाद्येकादशपर्यंन्तभूमिमानम्, चक्रवर्त्ति-महामण्डलेश्वरादिमहीशानां वेश्मसु सिंहद्वाराणि, अन्याल्पराज्यानां भवनेषु केवलं तोरणानीत्यादिविषयाः नात्रोपवृंहिताः।

सभा स० सू० २७–१	नन्दा भद्रा जया पूर्णा सभा स्याद् भाविता तथा। दक्षा च प्रवरा तद्वद् विदुरा चाष्टमी मता ॥
अश्वशाला ३३.१–२	अथ लक्ष्माश्वशालायाः प्रोच्यते विस्तरादिह। स्ववेश्मवास्तोः कर्तव्यं पदे गन्धर्वसंज्ञके ॥ अथवा पुष्पदन्ताख्ये स्थानं वासाय वाजिनाम्।

३३. ७५. ७६॥ हयागारस्य पूर्वेण कार्यं भेषजमन्दिरम्।
तस्यैव वामतः सर्वसंभारान् परिकल्पयेत्॥
वाजिनां भेषजार्थाय भाण्डानि च विनिक्षिपेत्।
अगदानोषधीः स्नेहान् वर्तीश्च लवणानि च॥
भेषजागारसविधे कुर्याच्चारिष्टमन्दिरम्।
भवनं व्याधितानां च कार्यं वासाय वाजिनाम्॥
सुगुप्तं तच्च कर्तव्यं पूर्वनिर्दिष्टवेश्मवत्।
संबद्धं च विधातव्यमेतत् वेश्मचतुष्टयम्॥
सुधाबन्धदृढैः कुड्यैः सप्राग्ग्रीवोच्चतोरणम्।
चत्वार्यपि विशालानि सुगमानि च कारयेत्॥
वेश्मस्त्वेवंविधेष्वश्वान् स्थापितान् परिपालयेत्॥

गजशाला — — — — — — सुभद्रेयमुदाहृता॥
३२. ९.-११ अस्या एव यदा पश्चप्राग्ग्रीवौ भवतो मुखे।
नन्दिनी नामतः शाला तदा स्याद् गजवृद्धये॥
अस्या एव यदा स्यातां प्राग्ग्रीवौ पार्श्वयोर्द्वयोः।
तदा सुभोगदा नाम तृतीया परिकीर्तिता॥
अस्या एव यदा पृष्ठे प्राग्ग्रीवः क्रियतेऽपरः।
भद्रिका नाम शाला स्यात् तथा द्विरदपुष्टिदा॥
पञ्चमी चतुरश्रा स्याद् वर्षणी नाम पूजिता।
प्राग्ग्रीवालिन्दनिर्यूहहीना षष्ठी तथापरा॥
शाला प्रमारिका धान्यधनजीवितहारिणी
तदेतां वर्जयेत् कुर्यादन्याः सर्वार्थसिद्धये॥
प्रमारिकेति प्रथितेह शाला सा प्राणसस्यद्रविणच्छिदे स्यात्।
कुर्यादतस्तां न यथोदितासु कार्याः परा जीवितवित्तवृद्ध्यै॥

राज-निवेशे प्रमुख-निवेशानां लक्षणम्

वि० वा० सार्वभौमादिभूपानां गुणिनां नयचक्षुषाम्।
न्यायशाला आस्थानिकं द्विधा प्रोक्तं न्यायशालासभाक्रमात्॥
१६. १-२२ न्यायशालास्थानिकन्तु प्रत्यहं राजपूजितम्।
धर्मसंस्थापनकार्येषु साक्षीभूतमहेश्वरा॥
सभा ब्रजादिनास्थानं महिष्यादिभिरर्चिता।
प्रासादे भवने हर्म्ये परिवारावृताङ्गणे॥
शुद्धां वेदीं पीठिकां वा समासाद्य महीपतिः।
नियम्य च मनःश्रेयोवर्धनं व्रतचारणम्॥
न्यायशाला तु कथिता सर्वदेवमयी शुभा।

सर्वशक्तिमयी सर्वप्राणिनां क्षेमवर्धिनी ॥
गुणाढ्या न स्थिरधिया भूभर्त्रा नयचक्षुषा ।
सा सेव्या लोकरक्षार्थं सहामात्यपुरोहितैः ॥
तस्मात्सर्वप्रयत्नेन तां कुर्याल्लक्षणान्विताम् ।
समस्थलां सावयवां सदेवां शिल्पकल्पनैः ॥
देश्या पौरेति सा न्यायसभा तु द्विविधा मता ।
जन्माधिष्ठानसंयुक्तां चतुर्दिग्द्वारभूषिताम् ॥
नयवाद्यासनोपेतां सामन्तासनसंयुक्ताम् ।
शालाकारां सभाकारां वर्तुलां चतुरश्रकाम् ॥
भूपालस्येच्छया वापि राजकार्यानुकूलतः ।
कोशागारयुतां देश्यां कल्पयेच्च सदेवताम् ॥
चक्रवर्तेः पटभाजो युवराजस्य भूभुजः ।
नरेन्द्रस्य क्षत्रियस्य महाराजस्य भूपतेः ॥
सामन्तस्य महीनेतुरासनेन समुज्ज्वलाम् ।
पौरां तु न्यायशालाख्यां मानसूत्रेण कल्पवित् ॥
विभज्य स्थानभेदादीन्स्थापयेल्लक्षणान्विताम् ।
मध्यशालाप्रमाणन्तु भानुदण्डकमीरितम् ॥
तदर्धं वा तदर्धं वा पूर्वशालाप्रमाणकम् ।
उपशालाभद्रकाख्यैरन्वितं च समन्ततः ॥
शालाकारां सभाकारां मण्डपाकृतिमेव वा ।
चतुरश्रां वर्तुलां वा त्रितलादिविराजिताम् ॥
महाधिष्ठानसंयुक्तां त्रिंशत्सोपानवेदिकाम् ।
देवासनसमोपेतस्तम्भकूटविराजिताम् ॥
विमानरचनोपेतां कुर्याच्छिल्पविशारदः ॥
ईशानादिचतुष्कोणेष्वष्टपादसमन्वितम् ।
पक्षद्वये षोडशकं चत्वारिंशत्सहस्तकम् ॥
चतुःपङ्क्तौ षोडशकं षट्पादं मध्यमाङ्गणम् ।
अङ्गणद्वययुक्तं वा पुरोव्यत्यासभागपि ॥
द्वात्रिंशत्पादयुक्तं वा मण्डलाकारभाक् तथा ।
चतुर्विंशत्पदोपेतमेवं त्रिविधकल्पनम् ॥
आद्यन्तु चतुरश्राख्यं द्वितीयं दीर्घवास्तुकम् ।
तृतीयं मण्डलं प्रोक्तं त्रितलेन समन्वितम् ॥
पूर्वभद्रसमायुक्तं मुक्तातोरणमण्डितम् ।
पूर्वास्यमुत्तरास्यञ्च वारुणास्यं क्रमादिदम् ।
कारयेच्छिल्पकर्मज्ञः.............................बुधः ॥

पौरा देव्या च सभा न्यायाधिकरणस्थाने सभा मुख्या प्रधानिका ।

१७, १-१४ देवी राज्ञी मानुषीति तत्क्रमः कथितो बुधैः ॥

अष्टोत्तरशतग्रामकार्यशाला सभा मता ।
मुख्या सभा तु सा प्रोक्ता पुराष्टोत्तरकार्यभाक् ॥
सार्वभौमेन वा भूपा भूपालैः चक्रवर्तिभिः ।
मान्या प्रधानिका प्रोक्ता सिंहासनसमन्विता ॥
सामन्तैर्वा माण्डलिकैः मण्डलाग्रविधायिनी ।
सचिवासनसंयुक्ता तत्स्थानसमाख्यया ॥
महाशालासमायुक्ता सर्वतोऽङ्गणशालिनी ।
दशदण्डादिकं मानं द्विद्विदण्डेन योजिताम् ॥
विंशद्दण्डकमानेन संयुतां कुम्भभासुराम् ।
शुद्धां वा मिश्रितां वापि कारयेच्छिल्पकोविदः ॥
मध्यशालाप्रमाणन्तु तदर्धं वा तदर्धकम् ।
वेदिकाद्यासनोपेतामुपशालां समन्ततः ॥
देव्यां पौरां तथा शालां माण्डलीकाश्च तत्स्थले ।
तन्नायकासनोपेतां पार्श्वद्वयवेदिकाम् ॥
महाधिष्ठानसंयुक्तां पूर्वोक्तां द्वितलाधिकाम् ।
चत्वारिंशत्पदोपेतां न्यायवेद्या समन्विताम् ॥
पञ्चाशद्द्वारां च कुम्भशालाष्टकसमन्विताम् ।
चतुर्विंशत्पदोपेतामुत्तरस्यां सतोरणाम् ॥
विमानच्छन्दोपेतामेकादितलभासुराम् ।
स्थापयेन्मानविच्छिल्पी युक्त्या मानेन सर्वतः ॥
अथवा त्रिंशत्पदैः संयुतां मध्यशालकाम् ।
चतुष्पदयुतां दिक्षु कुम्भपादयुगान्विताम् ॥
वर्तुलां चतुरश्रां वा तां प्राच्यादिगतां न्यसेत् ।
सपालिकाननां पार्श्वद्वारोपद्वारशोभिताम् ॥
इत्यादि बहुधा चित्रैः शोभितां कल्पयेद् बुधः ॥

भाण्डागारम् धनं सम्पादयेद्धीमान् कोशवृद्धिकारणम् ।

१८, १२-२८ धनसंरक्षणी शाला भाण्डागारमितीरिता ॥

तां शालां स्थपतिश्रेष्ठः स्थापयेल्लक्षणान्विताम् ।
देव्या पौरेति सा शाला द्विविधा कथिता बुधैः ॥
देव्या सद्मगा सालिन्दा द्वारोपद्वारसंयुता ।
प्राकारद्वयसंवीता भित्तिफलकसंवृता ॥
भूम्यां भूगर्भसंयुक्ता सप्तसोपानसंयुता ।
चतुरश्रा पार्श्वभागे देवीनां स्थानसंयुता ॥

प्रकल्प्या स्थपतिश्रेष्ठैश्शुभकाले विशेषतः।
पौरन्तु कोशसदनं प्रासादान्तर्गतन्तु वा॥
सप्राकारं सदुर्गं वा सप्तभित्तिसमावृतम्।
मण्डपाकृतिकं वापि शालाकारमथापि वा।
तदन्तर्भूगर्भदेशे चतुरश्रप्रमाणकम्।
अलिन्दद्वयसंयुक्तं तद्द्वारं कीर्तितं क्रमात्॥
दण्डत्रयं चतुर्दण्डमथवा पञ्चदण्डकम्।
मध्यभागप्रमाणं च स्थापयेत्सूत्रमानवित्॥
गणकाद्यधिनेतृणामासनैश्च समन्वितम्।
सर्वाभरणकैर्दिव्यैर्निधिदेवैस्सुरक्षितम्॥
भूगर्भस्थानसंयुक्तं भूमिदेवीसमन्वितम्।
धेनुचित्रलसन्नागधनदेवैः समन्वितम्॥
स्थापयेदुत्तरास्यञ्च सौवर्णद्वारपट्टिकम्।
सुवर्णं स्थापयेत्पूर्वे राजतं दक्षिणे तथा॥
उदीच्यां नवरत्नानि वारुणे लिपिकान्विणः।
स्थापयेत्क्रमशो भक्त्या प्रत्यहं चार्चयेन्नृपः॥
प्रथमावरणे दीपदेवी स्थाप्या सहासना।
द्वितीयावरणे देवी चामरग्राहिणी तथा॥
तृतीयावरणे देवी चाशीर्वचनकारिणी।
एवं देवीत्रयं स्थाप्यं यशोधनजयप्रदम्॥
कम्बलास्तरणोपेतमध्यभागविराजितम्।
सुवर्णपट्टसंयुक्तं राजतैस्तोरणादिभिः॥
शिखरत्रयसंयुक्तविमानेन च भासुरम्।
नानाचित्रसमोपेतं वितानैरपि मण्डितम्॥
पूर्वशालासमायुक्तं खड्गचिह्नसमन्वितम्।
स्थापयेन्मतिमान् शिल्पी रक्षकैस्संवृताङ्गणम्॥

आयुधागारम्
२०. ११-२२

गन्धमाल्याक्षतैश्शुद्धैस्सर्वकामसमृद्धये।
अस्त्राणामपि शस्त्राणां यन्त्राणां बहुरूपिणाम्॥
स्थानकं मातृकान्यासं भक्त्या सम्मानयेन्नृपः।
कुन्तः पाशस्तरी खड्गः करवालस्सखेटकः॥
भल्लः खरः खरोद्धारो भिण्डिपालस्समेरुकः।
शङ्कुलश्च कुठारश्च टङ्कश्शूलस्सृणिस्तथा॥
मुसलो वह्निकाग्रञ्च खलुका मुष्टिभेदनम्।
परशुस्तरवारी च छुरिका च विदारिका॥
मण्डलाग्रादयश्चान्ये परमर्मप्रभेदिनः।

तानशेषांस्तदीशानानर्चयेत्प्रत्यहं नृपः ॥
दशादिविंशतीदण्डवैशाल्येन समन्विताम् ।
प्राचीमुखां स्थापयेत्तु पञ्चप्राकारसंवृताम् ॥
उत्तमाधिष्ठानभावां पञ्चशालान्वितां तथा ।
कालीं रुद्रपतिं द्वारे स्थापयेत्तत्र भूपतिः ॥
महावेदीमध्यभागे क्षुद्राधिष्ठानसंयुता ।
चतुःक्षुद्रपदोपेतां चतुःकर्णसमन्विता ॥
प्रागानना नागकर्णा ब्रह्मदेवा च कीर्तिता ।
तत्र स्वर्णमये पीठे खड्गः स्थाप्यश्शुभेऽहनि ॥
शालानां मध्यभागेषु कुन्तादीन्कल्पयेत्क्रमात् ।
हेतिनाथप्रतिकृतिं कल्पयेत्तत्र भित्तिषु ॥
एकभौमा त्रिभौमा वा शाला सा परिकीर्तिता ।
शिखरत्रयसंयुक्ता छत्रयुक्ताऽथवा मता ॥
पताकालङ्कृता कल्प्या शुभे काले नृपाज्ञया ।
प्रत्यब्दं ब्राह्मणान्भूपस्तोषयेद्भोजनादिभिः ॥

पुस्तक-शाला
२०. २३-२४

खड्गसन्धारणं राज्ञश्शास्त्रसेवनमित्यपि ।
द्वयं (चैव विशेषेण) शुभप्रदमितीरितम् ॥
विज्ञानधर्मसुकृतसुखतत्त्वादिवर्धकम् ।
शास्त्रं भूपतिना सेव्यं नियमेन (मनीषिणा) ॥
ज्ञानेन प्राप्यते लक्ष्मीर्ज्ञानेन सुखमश्नुते ।
प्राणिसंरक्षणे ज्ञानमाद्यो मन्त्रीति कथ्यते ॥
गुरुदेवार्चनपरः प्राणिरक्षादृढव्रतः ।
यशसे कल्पते भूपश्शास्त्रसेवनतत्परः ॥
तेन तुष्यन्ति पितरो ब्राह्मणा वेदपारगाः ।
काले वर्षति पर्जन्यो मेदिनी सस्यशालिनी ॥
सुखभाजः प्रजाः सर्वा न्यायस्थितिरचञ्चला ।
इत्यादिक्षेमजनकं शास्त्रसेवनमीशितुः ॥
तस्माद्भूपतिना कार्यं प्रत्यहं शास्त्रसेवनम् ।
प्रासादे नीतिभवने पुराणामपि मध्यमे ॥
विदुषां मेलनस्थाने शास्त्रशालां प्रकल्पयेत् ।
चतुरश्रा शास्त्रशाला प्राङ्मुखावरणत्रया ॥
मध्ये कल्पविधानेन प्रकल्प्या वेदवेदिका ।
मुखभद्रचतुष्केण संयुताङ्गणशोभिनी ॥
बहिरान्धारिका युक्ता वातायनशतोज्ज्वला ।
एकभौमा त्रिभौमा वा शिखरेणापि भासुरा ॥

प्रथमावरणे वेदी द्वितीयावरणे स्मृतिः।
तृतीयावरणे चार्षं वेदनाथः परः पुमान्॥
वाणीं हयमुखं शम्भुमुमां सपरिचारिकाम्।
स्थापयेत्तत्र कार्यज्ञः कलशादिसमन्विताः।
गुरुपीठसमायुक्तः प्रजानां शेमुषीप्रदः॥

वसन्त गृहम्
२४. १–१०

सार्वभौमादिभिर्भूपैर्मोदाय मधुसेवनम्।
काले कार्यमिति प्रोक्तं तन्त्रविद्भिर्मुनीश्वरैः॥
तस्मात्तत्कल्पयेत्पुर्यामुद्याने भवनान्तरे।
परितस्तु चतुश्शालं जलकुम्भादिशीतलम्॥
प्राङ्मुखं कल्पनं शस्तं तदेव प्रीतिदायकम्।
चतुर्दण्डप्रमाणेन हीनं नोत्तममीरितम्॥
चतुश्शालावृते मध्यभागे मण्डलकल्पनम्।
विश्रान्तिवेदी तत्रैव गन्धशैत्यादिभासुरा॥
चत्वरादिसमोपेता सालङ्कारा सतोरणा।
सुखीकरणयुक्तं वा मण्टपाकृति वा भवेत्॥
चतुर्द्वारसमोपेतं नानाङ्कणसमन्वितम्।
एकभौमयुतं भौमं त्रिभौमं सार्वभौमिकम्॥
योषितां तु पृथक् शाला कल्पनीया विशेषतः।
नानासनसमोपेता सुहृदादिविभेदतः॥
शीतलैरुपचारैश्च मेदुरा दिशि सर्वतः।
चतुर्दिङ्मण्टपं पूर्वमन्दिरं वा प्रकल्पयेत्॥
क्षुद्राधिष्ठानसंयुक्तं सोपानावलिमञ्जुलम्।
आलोकमण्टपोपेतमथवा गीतिशालकम्॥
सतटाकं विहरणस्थानञ्च परिकल्पयेत्।

नृपायतनेषु—स० सू० ५१

उत्तमादिभेदेन त्रिधा भिन्नस्य नृपायतनस्य मानं विन्यासश्च ; नृपानुजीविनृपपत्नीगृहाणां देवधिष्ण्यानां च दिग्विभागादिकम् ; मन्त्रिसेनानीप्रतीहारपुरोधःप्रासादानां दिग्विभागादिकम् ; राजमातृस्वसृमातुलकुमार - प्रासादानां दिग्भागादिकम् ; द्विजमुख्यसामन्तकुञ्जरारोहभटपौरजनगृहाणां दिग्भागादिकञ्च तथा ; सर्वेषां गृहाणाम् सामान्यविधिः । इतरेषां गृहाणां भूषणादिभिः राजगृहैः साम्यमाधिक्यं च परिहरेदिति च वचनम्

समराङ्गण एव द्रष्टव्यम्। विस्तारत्वादत्र न दीयते।

द्वितीयः पटलः

पुर-निवेशोचित-द्वारभवनादिलक्षणम्

प्रतोली-लक्षणम्

अ० पृ०
८२. १-२८

प्रतोलीश्च प्रवक्ष्यामि कनिष्ठमध्यमोत्तमाः।
उच्छ्रयस्त्रिविधो वत्स द्वारां प्राकारतोऽपि च॥
प्रतोल्या द्वार उत्सेधः पञ्चदशकरैः शुभः।
मध्यस्त्रयोदशकरै रुद्रहस्तैः कनिष्ठकः॥
कनिष्ठमेकभूमं च द्विभूमं चैव मध्यमम्।
उत्तमं च त्रिभूमं स्यात् त्रिधोदितक्रमागतम्॥
उत्तमं चाऽष्टहस्तैश्च सप्तहस्तैश्च मध्यमम्।
कनिष्ठं चैव षड्हस्तैर्विस्तारस्त्रिविधो मतः॥
नवहस्तोच्छ्रिताः स्तम्भाः कुम्भकैः सुसमन्विता।
ऊर्ध्वमेकद्वित्रिक्षणा मालिकाश्च ह्यनुक्रमात्॥
मदलाः शीर्षस्तम्भिका निर्यूहे मदलाः पुनः।
स्वस्तिकाद्वयं शीर्षोर्ध्वे निर्यूहे मदला पुनः॥
शीर्षोर्ध्वे च भवेत्पट्टः शाखार्धं चोत्तराङ्गम्।
तुला जयन्ती पीता सा ? निर्मलं कपिशीर्षकम्॥
तदूर्ध्वे च पुनर्भूमिश्चतुर्द्वारं तृतीयके।
दृढार्गलाः कपाटाश्चाऽपवरकास्ततः परम्॥
वक्त्रद्वाराणि वक्ष्यामि प्रतोलीनां चतुष्टयम्।
अनुक्रमेण कर्त्तव्यं कथयामि समासतः॥
उत्सङ्गः पूर्णबाहुश्च हीनबाहुस्तथापरः।
प्रतिकाय इति प्रोक्तं प्रतोलीनां चतुष्टयम्॥
उत्तरामुख उत्सङ्गः पूर्णबाहुश्च पूर्वतः।
अपरे हीनबाहुश्च प्रतिकायस्तु दक्षिणे॥
सृष्टिप्रवेश उत्सङ्गः प्रतिकायोऽपसव्यतः।
पूर्णबाहुः पूर्ववक्त्रो वामास्यो हीनबाहुकः॥
वामभागे दिशि दिशि वामावर्तोद्भवास्तु ये।
द्वारं च दक्षिणावर्तं कथितं स्वपराजित॥
एकपोल्यं त्रिपोल्यं वा पञ्चपोल्यमथोच्यते।
एवंविधः प्रकर्तव्यः पोल्यानां तु समुच्चयः॥

एकपोल्यं वक्त्रद्वारं त्रिपोल्यं भ्रमणाढ्यम् ।
पञ्चपोल्यं तु चित्राढ्यं कर्तव्यं सर्वकामदम् ॥
प्राकारादियुक्तभागैर्विस्तरो भागषट्कृतः ।
निर्गमश्च चतुर्भागैः प्राकारो यत्र वाञ्छितः ॥
याम्यपार्श्वे समस्तत्र विस्तरस्तु त्रिभागिकः ।
निर्गमश्च त्रिभागैश्च संक्षेपात्कथितं मया ॥
त्रिभागं दक्षिणे त्यक्त्वा द्विभागं च तथोत्तरे ।
शेषा प्रतोली चैकांशा भागं दक्षिणभित्तिका ॥
भवेत् भागोत्तरा भित्तिः कर्णान्ते वलणं त्रिभिः ।
दक्षिणे भित्तिपार्श्वेऽग्रे कर्णान्ते वलणं त्रिभिः ॥
द्विभागं विस्तरं कुर्याद् वक्त्रमार्गप्रवेशनम् ।
एकपोल्यमिति ख्यातं संक्षेपात्कथितं मया ॥
वामे द्विभागविस्तीर्णे अपरे दशभागिके ।
दक्षिणे समभागश्च चतुर्भागं परे हितम् ॥
त्रिभागे विस्तरं याम्ये अपरेऽस्य तमपदम् ॥
याम्ये कुर्याच्च वेदांशं मूलद्वारं तु कारयेत् ।
चतुर्भागाभ्रमणं भागा भित्तिर्यास्योत्तरे ॥
भागा भित्तिस्तदग्रे च समद्वारं सतोरणम् ।
पुनर्भ्रमश्चतुर्भागः षड्भागश्चैव विस्तरे ॥
विधेयं पूर्ववच्छेषं त्रिपोल्यं नाम शोभनम् ।
यथा वामे तथा दक्षे भित्तिर्भागा भुजान्ततः ॥
मध्यभित्तिर्यथा पूर्वं चतुष्काकृति तोरणे ।
द्वारं द्वारस्य सूत्रेण भागिको भित्तिविस्तरः ॥
पुनरन्ते चान्तरे च द्वारं द्वारतृतीयकम् ।
तद्वत्तुल्यानि क्षेत्राणि कार्याणि शोभनानि वै ॥
पूर्वद्वारानुक्रमेण उभे द्वारे याम्योत्तरे ।
वक्त्रद्वारं पुनस्त्वेवं कर्तव्यं दक्षिणोत्तरे ॥
पञ्चपोल्यमिदं ख्यातं प्राकारः कपिशीर्षतः ।

राजालयछत्रादिकम्
अ० पु० ८१. १–२७

राजालयं च कथये प्रतापकीर्तिवर्द्धनं ॥
लक्षणं चोच्छ्रयं भूमेर्हस्तसङ्ख्याप्रमाणकम् ।
एकच्छत्रप्रभोक्ता यः स भवेच्च महीपतिः ॥
अष्टोत्तरशतहस्तैः कार्यं भवनमुत्तमम् ।
पृथिव्याश्च यदा राजा भुङ्क्तेऽर्धं परमेव च ॥
तस्य वेश्म प्रकर्त्तव्यं शतं हीनकरद्वयम् ।
तथा महीत्रिभागं च भुङ्क्ते यो वै नराधिपः ॥

अष्टाशीतिकरं वेश्म महीशानां त्रिधा मतम्।
लक्षग्रामाधिपो यस्तु स महामण्डलेश्वरः॥
तस्य वेश्म प्रकर्त्तव्यं द्विहीनाशीतिहस्तकम्।
लक्षार्धं यस्तु भुङ्क्ते स मण्डलीकोऽभिधानतः॥
अष्टषष्टिकरं तस्य कर्त्तव्यं भवनोत्तमम्।
अयुतद्वयग्रामेशो महासामन्तसंज्ञकः॥
तस्य वेश्माष्टपञ्चाशत्-करं कामफलप्रदम्।
सामन्तसंज्ञकः सोऽत्राऽयुतग्रामाधिपश्च यः॥
अष्टचत्वारिंशद्धस्तं भवनं सर्वशोभनम्।
ईशोऽयुतार्धग्रामाणां लघुसामन्तसंज्ञकः॥
अष्टत्रिंशत्करैर्युक्तं भवनं तस्य कामदम्।
सहस्रमेकं ग्रामाणां भुङ्क्ते स चतुरंशिकः॥
वेश्माऽष्टाविंशतिकरं कुर्याच्छान्तिकरं सदा।
ग्रामाणां विंशतिं भुङ्क्ते यः पञ्चदशकं तथा॥
ग्रामांस्त्रीन्द्वौ तथा चैकं भुङ्क्ते पर्यायसंस्थितः।
शतमेकं तु ग्रामाणां स्वल्पराष्ट्रं तु संज्ञितम्॥
अष्टादशकरं वेश्म कर्तव्यं सर्वकामदम्।
अष्टादशकरमध्ये ताः कर्तव्याः क्रमेण तु॥
सोपानपङ्क्तिमर्यादा कथिता त्वपराजित।
राजालये च यन्मानं तदर्धं दण्डनायके॥
तदर्धं मन्त्रिसंस्थानं मन्त्र्यर्धं द्वारपालके।
पुरोहिते तत्समं च तदर्धं जनसंकुले॥
अनुक्रमादिकं सर्वं ज्येष्ठमध्यकनिष्ठकम्।
अष्टहस्ते त्वेकभूमं द्विभूममष्टादशके॥
त्रिभूममष्टाविंशत्याऽष्टत्रिंशद्भिर्वेदभूमम्।
अष्टचत्वारिंशद्भिः पञ्चभु षड्भ्वष्टपञ्चाशद्भिः॥
अष्टषष्ट्या सप्तभूममष्टभ्वष्टसप्ततिभिः।
अष्टाशीत्या नवभूमं दशभ्वष्टनवतिभिः॥
भद्रमेकादश भूममष्टोत्तरशतात्मके।
सिंहद्वारानुक्रमं च कथये त्वपराजित॥
द्वारत्रयन्तूत्तमे च कर्त्तव्यं चक्रवर्तिभिः।
उत्तमं पञ्चदश च मध्यमं च त्रयोदश॥
कनिष्ठं रुद्रहस्तान्तमुच्छ्रयेण तु योजितम्।
इदं सिंहद्वारमानं त्रिधा स्याच्चक्रवर्तिनि॥
महाराष्ट्रेश्वरे राज्ञि महामण्डलकेश्वरे।

चक्रवर्तिनि मध्याधे कनिष्ठं मण्डलेश्वरे ॥
अनन्तरं च कथये सिंहद्वारे यथाक्रमः।
द्वारयुग्मं तु कर्त्तव्यं महासामन्तके सदा ॥
द्वारमेकं तु कर्त्तव्यं तथा सामन्तकादिके।
अन्येषां स्वल्पराज्यानां ये स्मृताश्चान्यसंज्ञकाः ॥
तेषां च तोरणं दद्यात् सिंहद्वारविवर्जितम्।
स्तम्भयुग्मं त्वङ्गाग्रं सिंहकर्णैर्विभूषितम् ॥
नपुंसकैः विना कर्णैः स्वल्पराजेषु भाषितम्।
स्तम्भयुग्मोर्ध्वतः कुर्यात्पत्रमालात्रयं तथा ॥
विप्रेषु क्षत्रियोक्ताश्च मालायुग्मं च वैश्यके।
एकमाला तु शूद्राणां स्तम्भोर्ध्वं वंशकोच्छ्रिताः ॥
वंशोच्छ्रिता विना स्तम्भैः प्रकृतीनां च सर्वशः।

प्रविभाजितपदे निविष्टमार्गे प्रविभक्ततत्तज्जातिवर्णाधिवासे प्राकारपरिखादियुते मुनिविष्टारामोद्याने च पुरनिवेशे केषाञ्चन जनभवनानामपि निवेशाः बाढमपेक्ष्यन्ते तेषु केचन यथाः—

विद्या-शाला
वि० वा०
२०-१-११

प्रासादे भवने पुर्यां ग्रामे वा शुभवास्तुके।
विद्याशालामेकशैलीमेकसूत्रप्रमाणकाम् ॥
समानकल्पनयुतां नानाभौमाम प क्वचित्।
वासश्चार्पद्वारयुक्तां कल्पयेत्क्षेमसिद्धये ॥
मध्यमानाधिका चान्तःशाला चत्वरशोभिनी।
चतुर्दिग्द्वारसंयुक्ता चतुःकल्पनशोभिनी ॥
नानावरणसंयुक्ता तलपङ्क्तिभासुरा।
सुषिराढ्या स्तम्भयुता समकल्पनभासुरा ॥
शालामण्टपभेदेन द्विधाऽधिष्ठानभाक् तथा।
दृढभित्तिसमायुक्ता वातायनशतान्विता ॥
महाशाला बहिः स्थाप्या द्वारभागे विशेषतः।
मिथो द्वारसमोपेता मध्यशाला प्रकीर्तिता ॥
वास्तुभेदेन तद्वारां प्रविभज्य विशेषतः।
पुष्पवेदिसमायुक्तां कल्पयेन्नगरोत्तमे ॥
शास्त्रशालान्वितां मध्ये वादस्थानसमन्विताम्।
परीक्षास्थानसंयुक्तां क्लृप्ताभ्यागगृहां तथा ॥
नानाभेदयुतां भूपो राजधान्यां प्रकल्पयेत्।
विमानशिखरोपेतां नानाचित्रमोहगाम् ॥
सर्वालंकारसंयुक्तां पूर्वमण्टपशोभिताम्।

सह मङ्गलघोषेण लोकक्षेमाय भूपतिः ॥
स्थापयेच्छिल्पिभिर्विद्याशालां शुभमुहूर्तके ।

रङ्गशाला
वि० वा०
४१-१-२६

प्रासादस्य पुरोभागे स्वास्थानस्य तु दक्षिणे ।
मन्त्रिसेनेशभवनपार्श्वे वा पुरमध्यमे ॥
मध्यसद्मसमीपे वा मेलनस्थानकेऽपिवा ।
राजवीथीमुखान्ते वा शृङ्गाटकतलेऽथवा ॥
रङ्गशालां गीतिशालां मिलितां स्थापयेद् बुधः ।
देवगन्धर्वमानुष्यभागत्रयविभाजिताम् ॥
गीतिशाला नाट्यशाला पृथक्स्थाप्या क्वचित्स्थले ।
चतुर्दण्डं समारभ्य द्विद्विदण्डविवर्धनात् ॥
विंशद्दण्डान्तकं मानं प्रतिभागं विधीयते ।
राजधान्यां क्वचिद्भागे मानाधिक्यन्तु मानुषे ॥
अथवा यद्द्विगुणितं मानं वा नेयमीरितम् ।
अथवा मण्डलं भागं मानुषं कल्पयेद्बुधः ॥
अथवाऽऽवरणस्थानात्क्वचिद्भौमादिभेदतः ।
पार्श्वाङ्गणस्थापनाद्वा महिष्याद्यवलोकनम् ॥
यथा स्फुटन्तु सर्वेषां तथैतत्कल्पनं वरम् ।
महाधिष्ठानसंयुक्तं नेत्रत्रयसमन्वितम् ॥
कल्पनं सुखदं नृणां देवाद्यानन्दवर्धकम् ।
दैवेऽलङ्करणं शस्तं गान्धर्वे गानमीरितम् ॥
मनुष्यभागे स्थानानि कथितानि सभासदाम् ।
मनुष्यभागस्य पुरः स्थानं वैरिञ्चमीरितम् ॥
ब्रह्मद्वारन्तु तत्रस्थमखण्डानन्दवर्धकम् ।
द्वारोत्सेधसमं श्रेष्ठं चतुरंशविहीनकम् ॥
मध्यमे द्वित्रिभागे च कन्यसंवृषभोदयम् (?) ।
गर्भार्धकस्य तद्द्वारन्यासमत्र प्रकीर्तितम् ॥
रङ्गवेद्या समायुक्तं स्थलमेतन्निगद्यते ।
गायकानां स्थानकं वा निस्साणातोद्यभूमिकम् ॥
तदन्तरेऽष्टभागं वा नवभागमथापि वा ।
विभजेत्तत्र मानज्ञः कल्पयेत्सदनं दिशि ॥
पञ्चाद्यकरं तुङ्गमेकांशं मात्रमीरितम् ॥
पञ्चाद्यङ्गुलमायाममेवं तन्मानमीरितम् ।
सव्ये नदीनां वस्त्रादीनितरस्मिन्नटस्य च ॥
शाला वा कूटका वापि पूजोपकरणार्हका ।
शालाकृतिः प्रकर्तव्या पुरतो नान्दिकोचिता ॥

तत्पुरः सदनं तुङ्गं नानाभौमयुतं महत् ।
चतुर्दण्डं पञ्चदण्डमथवा दशकावधि ॥
मानमत्र प्रयोज्यन्तु तक्षकैः कल्पनार्हकम् ।
मध्यभागं विशालं च नानाङ्गणविराजितम् ॥
विमानशिखरोपेतं कर्णनासाविभूषितम् ।
तुङ्गस्तम्भशतैर्युक्तमशीतिस्तम्भकं तु वा ॥
चतुष्षष्टिस्तम्भयुतमथवैतत्प्रकल्पयेत् ।
शालाकारमिदं प्रोक्तं राजवेश्मनि मण्टपम् ॥
वदन्ति मुनयश्शस्तं ज्ञानानन्दकरं परम् ।
मणिदर्पणशोभाढ्यं वातायनशतान्वितम् ॥
तोरणादीनि चित्राणि तत्र तत्र प्रकल्पयेत् ।
विधातारञ्च वाणीं च गीतिशास्त्रप्रवर्तकान् ॥
विद्याधरीं जगद्धात्रीं कल्पयेच्चन्द्रसूर्यकौ ।
द्वारपार्श्वस्थले योधं स्थापयेद् खड्गधारिणम् ॥
चामरग्राहिणीं दिव्ययोषितं वाऽत्र कल्पयेत् ।
लक्ष्मीमुमां शिवं दिव्यगायकान्वा प्रकल्पयेत् ।
पार्श्वभित्तिसमायुक्तामङ्गणाङ्गणकल्पनाम् ॥
सुषिरद्वारभागाढ्यामात्तपङ्क्तिक्रमां तथा ।
कल्पयेल्लक्षणोपेतैः नानाचित्रादिभिर्युताम् ॥
क्वचिदुद्यानवापीं वा सुखदां शुद्धवास्तुकाम् ।

गोशाला
वि० वा०
६६. १–१४

देवानां च पितॄणां च गोसेवाऽऽनन्दकारिणी ।
गोभिस्स्वर्गफलं विन्दन्मोदते दिवि मानवः ॥
गोभिरेव सुखं पुंसां जायते नात्र संशयः ।
तस्मात्स्थपतिभिस्स्थाप्या गोशाला शुभवास्तुके ॥
चतुर्थभागसीमान्ते निष्कुटाराममध्यमे ।
शोषे वा भृङ्गराजे वा पश्चाद्भागस्थलेऽथवा ॥
कल्पनेन समायुक्तं वियुक्तं वाऽथ कल्पयेत् ।
गोशाला मण्टपाकारा पार्श्वाङ्गणसमन्विता ॥
कूटाकारा क्वचित्कार्या सपादा वा विपादका ।
सार्कप्रभा सावरणा हेमन्तादौ सुखप्रदा ॥
समसूत्रसभायुक्ता महाद्वारक्रियान्विता ।
सुषीरभागद्वारा वा सुखकल्पयुता क्वचित् ॥
सोपानद्वययुक्ता वा त्रिसोपाना क्वचिन्मता ।
नानाङ्गणविभक्ता वा नानारज्जुस्थलान्विता ॥
पलालपट्टिकोपेता सुखवेदिकया युता ।

पञ्चकृत्यसमोपेता नातिश्लक्ष्णा न कर्कशा ॥
चिक्कणैरिष्टिकाखण्डैः पाषाणैर्वा क्वचित्स्थली।
भूमिका कल्पनीयोऽत्र गोशालायां विशेषतः॥
मध्यचत्वरयुक्ता वा चत्वरानेकमण्डिता।
कल्पनीया विशालान्तर्भागिका रेखणान्विता॥
वाजिशालाप्रमाणा वा क्वचित्कार्या नृपालये।
मुखाङ्गणसमोपेता मुखनासादिभूषिता॥
कण्डूपट्टिकयोपेता . क्वचित्कार्या प्रकल्पना।
नातिनिम्नोन्नतस्था च न कण्टकमहीरुहा॥
न जलस्रावकण्ठा च गोशाला ·शुभदा मता।
मुखे वा द्वारपट्टे वा गोदेव्याकारकल्पनम्॥
वंशशालां शावलकां सौधकल्पयुतान्तु वा।
सुकल्पनं गवां क्षेमकारणं परिकीर्तितम्॥

मृगशाला
वि० वा०
३७. १–६

बालानां बालिकानां च युवतीनां विशेषतः।
शुद्धान्तसुन्दरीणां च चित्तहर्षाभिवृद्धये॥
कल्पनं विविधं कार्यं स्थलजात्यादिभेदतः।
शुकानामपि कीराणां मयूराणामपि क्वचित्॥
हरिणानां च वत्सानां लाल्यलीलादिनामपि।
शाला तु विविधा स्थाप्या लोहदारुसुधेष्टिकैः॥
शुकानां पञ्जरः कुन्दा हरिणानां निगद्यते।
वत्सादीनां शालका च त्रैविध्यं मुख्यमीरितम्॥
लोहदण्डं दारुदण्डं शृङ्खलान्वितमेव वा।
बहुरन्ध्रं सकटकं पञ्जरं कल्पयेद्बुधः॥
लोहदण्डमयी प्रायः कुन्ददारुमयी क्वचित्।
क्वचिच्छिलात्रुटमयी सगवाक्षसतोरणा॥
क्षुद्रशाला क्वचित्कार्या वत्सादीनां शुभे स्थले।
नानाङ्गणसमोपेतशाला वाऽथ भौमिका॥
सतोयपात्रा साधारा मध्यशृङ्खलिकान्विता।
वातायनस्थलकृता भीकैश्च विवर्जिता॥
बहिः खेलनभूम्या वा शालया वा समेयुषी।
चतुर्दण्डाधिकौन्नत्या पटल्या च विभूषिता॥
कल्पनान्तरमूह्यैवं स्थाप्यं शिल्पविशारदैः॥

मार्गविश्रांतिस्थलम्
वि० वा० ७०. १–१२

सर्वत्र मार्गभागेषु कल्पनं भयनोदकम्।
सायुधानां भटानां च स्थितिधैर्यप्रदायिनी॥
तस्मात्तत्कल्पयेच्छिल्पी क्रोशमात्रस्थलादिषु।

श्रान्तानां पथिकानां च विश्रान्तिस्थानकैर्युतम् ॥
दलमण्टपकल्पं वा दलकूटप्रकल्पनम् ।
द्विदण्डकाकल्पनं वापि नानासनसमन्वितम् ॥
त्रिभूमिगोपुरं वापि पञ्चभूगोपुरन्तु वा ।
सप्तभूगोपुरं वापि पृथुस्तम्भयुतन्तु वा ॥
योजयेत्कल्पविच्छिल्पी दृढं सुन्धककल्पनम् ।
देवगन्धर्वभूपालचित्रभासुरकुड्यकम् ॥
नानाङ्गणसमोपेतं नानापङ्क्तिविराजितम् ।
मध्यमण्डपयुक्तं वा सविमानतलं क्वचित् ॥
मध्ये मध्येतरे भागे कण्ठालस्थापनं वरम् ।
वटोऽश्वत्थो नारिकेलः पनसस्सहकारकः ॥
वर्धनीयाः कुन्दलताः पूगनारङ्गभूर्जगाः ।
पुन्नागश्चापि नागाश्च निष्कुटार्हाः क्वचित्स्थले ॥
जलाशयः पल्वलश्च कर्तव्यः पृथुवारकः ।
वाहस्थानं वृषस्थानमन्तिके कारयेद्बुधः ॥
क्वचित्तु मदिरागेहं प्राणिनां सुखदायकम् ।
तृणस्थानमथान्यच्च कल्पयेत्कोशमात्रके ॥
पूर्वापरगृहद्वारयोर्घस्थानं प्रकल्पयेत् ।
द्वारालङ्करणं कार्यमन्यच्च शुभदर्शनम् ॥
चतुर्वर्गप्रदीपाढ्यं पञ्चगेहसमन्वितम् ।
तोरणैश्चित्रकैर्युक्तं मार्गद्वारप्रकल्पनम् ।
स्थापयेत्कल्पनं युक्त्या प्राणिनां सुखदायकम् ॥

वापी

वि० वा०

२२. १-६

यत्र स्वादुजलस्रावः सन्ततं स्थितिमागमयेत् ।
परीक्ष्य तत्र कर्तव्यं वापीकूपादिकं मतम् ॥
चतुरश्रां वर्तुलां वा दीर्घां वा तां प्रकल्पयेत् ।
त्रिदण्डं वा चतुर्दण्डं पञ्चदण्डमथापि वा ॥
षडादिदशदण्डान्तं प्रमाणमिह योजयेत् ।
चतुर्मुखां वा द्विमुखां क्वचिदेकमुखां तु वा ॥
दशहस्तप्रमाणं वाऽधिकं वा तलमध्यभाक् ।
भित्तिकल्पनमश्मकमैष्टिकं शैलकं तु वा ॥
जलान्तिकेऽङ्कणं कल्प्यमाद्यमेतदुदीरितम् ।
द्वितीयाङ्कणकं वापि तृतीयाङ्कणकं तु वा ॥
सपादं वा विपादं वा युक्त्या स्थापनमीरितम् ।
कल्पनं दार्ढ्यसंयुक्तं पादसोपानमञ्जलम् ॥
मुखमण्टपयुक्तं वा कवाटादिसमन्वितम् ।

वाप्यां वर्तुलरूपायां भुजङ्गावेष्टनाकृति ॥
पङ्क्तिं दृढां वा रचयेदथवा सूत्रपङ्क्तिकम् ।
चतुर्विंशत्यङ्गुलेन विहीनं नेष्यते बुधैः ॥
घटीयन्त्रस्थलं तीरे रचयेत्साङ्गणं बुधः ।
अवगाहतलोपेतद्वारकिन्नररूपकम् ॥
कल्पनं देवमूर्तीनामथवा संप्रयोजयेत् ।

तटाकः
वि० वा०
३४. १–१०

तटाककल्पनाच्छ्रेयः प्राणिनां च सुखं मतम् ।
तस्मात्तत्कल्पयेद्धीमान्ग्राममध्ये शुभस्थले ॥
मार्गस्य मध्यभागे च वास्तुभूमौ विशेषतः ।
सततं स्वादुसलिलस्रावो यत्र च दृश्यते ॥
अन्तःकूपसमायुक्तं दक्षिणोत्तरदैर्घ्यकम् ।
वरुणेन्द्रदिशाभागस्थायि वा स्थलयोग्यकम् ॥
तटाकनाम्ना भणितं महत्खातं हितप्रदम् ।
निष्पङ्कागाधसलिलं पूरयेद्वा क्वचित्स्थलम् ॥
जलनिर्गमनोपेतमागमायनसंयुतम् ।
भान्वङ्गुलोन्नता पङ्क्तिर्द्विगुणायतिका मता ॥
मध्ये महापङ्क्तियुक्तमृजुसूत्रे च निश्चलम् ।
तीरमण्टपसंयुक्तं तीरवृक्षैश्च शोभितम् ॥
जलमण्टपसंयुक्ता क्वचित्कार्योत्तमे ।
दैवे तटाके तत्कल्प्यं विमानशिखरोज्ज्वलम् ॥
खण्डपङ्क्तिः क्वचित्कार्या तटाकेषु सरस्सु च ।
मेदिनीपट्टिकोपेता जलं सर्वत्र कल्पयेत् ॥
रेखारूपं मीनरूपं लतारूपं च तक्षयेत् ।
भूर्जपत्रलेपणं वा नानाङ्गणसमन्वितम् ॥
वानरक्रीडनं चापि तक्षयेत्सुमनोहरम् ।
क्वचिदष्टमुखोपेतं तटाकं बहुपङ्क्तिकम् ॥
स्थापयेन्नृपतिर्देशे प्राणिनां सुखदायकम् ॥

कूपाः
अ० पू०
७४. ३. ७

श्रीमुखो विजयः प्रान्तो दुन्दुभिश्च मनोहरः ।
चूडामणिश्च दिग्भद्रो जयो नन्दश्च शङ्करः ॥
चतुर्हस्तः श्रीमुखः स्याद् विजयः पञ्चहस्तकः ।
षड्भिर्हस्तैर्भवेत् प्रान्तो दुन्दुभिर्सप्तहस्तकः ॥
मनोहरश्चाष्टहस्तश्चूडामणिर्नवकरः ।
दिग्भद्रो दशहस्तश्च ह्येकादशकरो जयः ॥
नन्दे च द्वादशकराः शङ्करेच त्रयोदश ।
एवमादिगुणोपेता वृत्तकूपा दशोत्तमाः ॥

तृतीयः पटलः

भवन-सज्जा

सर्वजनोचित-शयनासनादि—शयनानिः—

	शय्याद्रव्याणि गृहकर्मणि ये नेष्टा वृक्षास्तेऽत्रापि निन्दिताः।
स० सू. २६. ५–६॥	हेम्ना रूप्येण चानद्धा गजदन्तेन वा शुभा॥
	आरकूटेन वा नद्धा शय्या कार्या विचक्षणैः।
२६. २२–२३॥	श्रेष्ठैकद्रव्यजा शय्या मिश्रद्रव्या न शस्यते॥
	एकदारु प्रशंसन्ति द्विदारुर्भयमावहेत्।
	त्रिदारुघटितायां तु स्वामिनो नियतो वधः॥
	शय्यायां जायते यस्मात् तस्मात्'तांपरिवर्जयेत्।
निश्छिद्रत्वम्	मध्ये व्रणो मृत्युकरस्त्रिभागे व्याधिकारकः॥
२६. २५–२७	क्लेशावहश्चतुर्भागे शिरस्थो द्रव्यहानिकृत्।
	निर्दोषगात्रे पर्यङ्के पापस्वप्नो न दृश्यते॥
	ग्रन्थिकोटरवत् कुर्यात् तस्मान्न शयनासनम्।
	आसनं शयनीयं च ग्रन्थिकोटरवर्जितम्॥
	बहुपुत्रकरं प्राहुर्धर्मकामार्थसाधनम्।
गुणदोषाः	आरोहणे प्रचलति शयने कम्पते तथा॥
२६. २८–२९	विदेशयानकलहौ ते क्रमेण प्रयच्छतः।
	सुश्लिष्टां तामतः कुर्यान्निर्दोषां वर्णशालिनीम्॥
	दृढां स्थिरां च स्थपतिः पत्युः कामविवृद्धये।
छिद्रभेदाः	निष्कुटं कोलदृक् क्रोडनयनं वत्सनाभकम्॥
२६. ३०	कालकं बन्धकं चेति छिद्रसंक्षेप ईरितः।

आसनानि—

स० सू० २६. ३६–३७	शय्यार्थे कथितैः क्लृप्तं दारुभिः शस्तमासनम्।
	उपवेशसुखं मानं प्रशस्ताय प्रकल्पितम्॥
२६. ४५–४६॥	गजदन्तमयः श्रेष्ठस्तथा शालोटवृक्षजः।
	मध्यमो दारुभिः शेषैर्जघन्यो सारदारुजः॥
	रूपकैः स्वस्तिकाद्यैर्वा स मध्ये स्यादलङ्कृतः।
पादुकादयः	अङ्गुलेनाधिके पादात् कार्ये दैर्घ्येण पादुके।
२६. ४७—५१॥	कृतायां पञ्चधा तस्यां कुर्याद् भागत्रयं पुरः।

पश्चाद् भागद्वयं तत्र सङ्ग्रहोऽस्या विधीयते ॥
अङ्गुलत्रयमुत्सेधो विस्तारोऽङ्घ्र्यनुसारतः ।
अङ्गुल्यङ्गुष्ठयोर्मध्यभागे मत्स्याद्यलङ्कृतौ ॥
कर्त्तव्यौ कीलकौ काष्ठदन्तशृंगादिसम्भवौ ।
गजेन्द्रदन्तः श्रीखण्डश्रीपर्ण्यौ मेषशृङ्गिका ॥
शस्ताः पादुकयोः शाकक्षीरिणीचिरबिल्विकाः ।

आसनानि मान०

नित्यार्चनासनं चैव नित्योत्सवासनमीरितम् ॥
विशेषाख्यार्चनार्थाय विशेषाख्यार्चनासनम् ।
चतुर्विधासनं प्रोक्तं देवानामपि योग्यकम् ॥
आदौ पद्मासनं प्रोक्तं द्वितीयं पद्मकेसरम् ।
तृतीयं पद्मभद्रं स्याच्छ्रीभद्रं स्याच्चतुर्थकम् ॥
पञ्चमं श्रीविशालं स्यात्षष्ठं श्रीबन्धमेव च ।
सप्तमं श्रीमुखं चैव भद्रासनं तु चाष्टकम् ॥
नवमं पद्मं च भद्रं स्यात् दशमं पादबन्धकम् ।
आसनानां तु चैतानां नामानि कथितानि वै ॥

शयनम् मान०]

तैतिलाश्च नराश्चैव यस्मिन्यस्मिन् परिष्ठिताः ।
तद्वस्तु सूरिभिः प्रोक्तं तथा वै वक्ष्यतेऽधुना ॥
धराहर्म्यादि यानं च पर्यङ्कादि चतुर्विधम् ।
धरा प्रधानवस्तु स्यात्तत्तज्जातिषु सर्वशः ॥
विमानादीनि वास्तूनि वस्तुतः वस्तुसंश्रयात् ।
तान्येव वस्तु चैवेति कथितं वास्तुविद्बुधैः ॥
प्रासादमण्डपं चैव सभाशालाप्रपास्तथा ।
अरङ्गमिति चैतानि हर्म्यमुक्तं पुरातनैः ॥
आदिकं स्यन्दनं शिल्पिन् शिबिका च रथं तथा ।
सर्वं यानमिति ख्यातं शयनं वक्ष्यते तथा ॥
पञ्जरं मञ्चली मञ्चं काकाष्टं फलकासनम् ।
तथैव बालपर्यङ्कपर्यङ्कमिति कथ्यते ॥
कुम्भपादमिति प्रोक्तं तस्मादुच्चं प्रवेशनम् ।
तदेव हरिकाकर्णं सर्वाङ्गं पद्मवाजनम् ॥
वज्रपादमिति प्रोक्तं युक्तया कुर्यान्मनोहरम् ।
अथवा मध्यकर्णादौ चोर्ध्वादौ पद्मवाजनम् ॥
पद्मपादमिति प्रोक्तं सर्वालङ्कारसंयुतम् ।
चतुः षट्पादयुक्तं वा देवानां च द्विजातीनाम् ॥
देवानां भूतसिंहं वा पादमध्ये प्रयोजयेत् ।
नृपाणां सिंहपादं स्यात शेषाणां पूर्ववद्भवेत् ॥

सिंहासनम् मान०

देवानां चक्रवर्त्यादिनृपावासकयोग्यकम् ।
सिंहासनस्य मानं च लक्षणं वक्ष्यतेऽधुना ॥
प्रथमाभिषेकयोग्यं स्यात्प्रथमासनमेव च ।
मङ्गलाख्याभिषेकस्य मङ्गलासनमीरितम् ॥
वीराख्याभिषेकस्य च वीरासनमुदीरितम् ।
विजयाख्यस्याभिषेकस्य विजयासनमीरितम् ॥
एवं चतुर्विधं प्रोक्तं भूपानामासनं भवेत् ।
अस्त्रग्राहस्य नृपतेः सिंहपादं न कारयेत् ॥
क्षुद्रभूपविशां शूद्रैः उपपीठादि योजयेत् ।
चतुरश्रसमायुक्तं सर्वेषां सर्वमासनम् ॥
देवानां मौलिनामुक्तं युक्तं सर्वेषु योग्यकम् ।
प्रथमासनादि सर्वेषां भूपानां तान्युदीरितम् ॥
षट्पादेन समायुक्तं सिंहरूपं प्रकल्पयेत् ।
तत्सर्वं प्राङ्मुखं कुर्याद्विपरीतं चेद्विनाशनम् ॥

तत्र तोरणम् मान०

तोरणं त्रिविधं ज्ञेयं मकरं चित्रपत्रके ।
देवद्विजनृपाणां तु शस्तं मकरतोरणम् ॥
विशां तु चित्रसंज्ञं स्याच्छूद्राणां पत्रतोरणम् ।
पार्श्वयोः पृष्ठतश्चापि प्रकुर्यात् कुड्यतोरणम् ॥
प्रतेरुत्तरसीमान्तं तोरणोदय ईरितः ।
तदर्धेनास्य विस्तारस्तद्व्यासेऽथ शरांशके ॥
त्रिभिर्मकरयुग्मं स्यादंशाभ्यां पादयोः स्थितिः ।
यथा शोभान्तरं तत्र गुहावेशो भवेदपि ॥
अर्धेन्दुसदृशैः पत्रैश्चित्रितं पत्रतोरणम् ।
नक्रयोर्वदनासक्तमध्यपूरिममण्डितम् ॥
चित्रतोरणमुद्दिष्टं मध्यपूरिमपार्श्वयोः ।
विगृह्य मकरस्योरथरत्नमालाविरोपितैः ।
भूतविद्याधरव्यालसिंहैश्चारूढवालकैः ॥
विलम्बितं तूभयतो भवेन्मकरतोरणम् ।
गुहासु तोरणानां तु यथार्हं प्रतिमास्तथा ॥
न्यस्येन्नारीनरादींश्च यथाशोभं विचित्रतम् ।
हारासु वलभीमध्ये प्रमाणभवनेऽपि वा ॥
कुड्येषु तोरणानि स्युस्तत्कुड्यं पञ्चधा स्मृतम् ।
शिलामयं चैष्टकं च जालकामयमित्यपि ॥
फलकामयमप्यन्त्यं मृन्मयं चापरं क्रमात् ।
यथार्हन्यासमनुक्तं नन् कुड्यं शैलं शिलामयम् ॥

नानाजालकनिष्पाद्यं कुड्यं यज्जालकामयम् ।
यथार्हस्तम्भविन्यासं शस्तदारुमयक्रियम् ।
फलकाभिश्चितं मध्ये कुड्यं स्यात् फलकामयम् ॥
मृत्तिकाभिः प्रशस्ताभिः कषायसलिलादिभिः ।
मर्दिताभ्युषिताभिश्च चितं कुड्यं तु मृन्मयम् ॥
कुड्यव्यासत्रिदेवांशबहलां साग्रपङ्कजाम् ।
पट्टिकां चतुरश्रां वा कुड्योपरि नियोजयेत् ॥
स्तम्भान्तरं द्विहस्तादि भवेत् पञ्चकरान्तरम् ।
वितस्तिवृद्ध्या तन्मध्ये कार्या कुडयलता त्रिधा ॥
कुड्यस्तम्भस्य विस्ताराद् द्विगुणं चार्धमुच्छ्रितम् ।
अधःपद्मासनं कुर्यात् तदूर्ध्वं च यथारुचि ॥
विनिर्गतोन्नतिं कुम्भं पार्श्वयोस्तस्य तन्मुखात् ।
पत्रैर्विनिर्गतैश्चित्रं यथाशोभं नियोजयेत् ॥
तदूर्ध्वं कुड्यकस्तम्भसमपादाम्बुजासनम् ।
अखण्डकलशं कुर्यात् पद्मकुम्भलतायुतम् ॥
सा तु कुम्भलता संज्ञा सैव खण्डोपरि क्रमात् ।
शक्रतोरणवन्न्यस्ता स्तम्भकुम्भलता मता ॥
कुम्भपद्मासनयुता सैव सर्वलतान्विता ।
पद्मकुम्भलता नाम विज्ञेया हि लता भवेत् ॥
तले तले विमानानां दिक्षु बेराणि विन्यसेत् ।
नन्दीश्वरमहाकालौ पूर्वद्वाराधिपौ न्यसेत् ॥
दक्षिणे दक्षिणामूर्तिं पश्चिमे लिङ्गसम्भवम् ।
विष्णुं वाप्यथ कौबेरे दुर्गां ब्रह्माणमेव वा ॥
मण्डपे मध्यपत्रे तु दक्षिणे च विनायकम् ।
उत्तरे नृत्तरूपं तु चेन्द्रेशं चैशगोचरे ॥
रुद्रावतारक्रीडादिकथारूपाणि चैव हि ।
मूलभित्तौ च परितो विन्यसेदुक्तलक्षणम् ।
अथोपरितलात् प्राच्यामिन्द्रं षण्मुखमेव वा ॥
दक्षिणे दक्षिणामूर्तिं वीरभद्रमथापि वा ।
पश्चिमे नरसिंहं चाप्युत्तरे चार्थदं विधिम् ॥
द्वितीये तु तले चैवं तृतीये तु मरुद्गणान् ।
तले तलेऽमरान् सिद्धान् यक्षविद्याधरानपि ॥
गन्धर्वानप्यप्सरसः सिद्धान् नागांस्तथा मुनीन् ।
प्रमथांश्चैव दैत्यादीन् षोडश प्रतिमास्तथा ॥
कण्ठादधः प्रतेरूर्ध्वं कोणे कोणे वृषान् न्यसेत् ।

सर्वेषामपि देवानां कोणे कोणे स्ववाहनम् ॥
कण्ठादधश्चान्यतले प्राकारादौ च विन्यसेत् ।
इत्येवमादिभिर्युक्तं विमानं सम्पदां पदम् ॥

पञ्जराणि मान०

गर्भार्द्धसमविस्तारा महानासाश्चतुर्दिशम् ।
तदर्धाद् वा त्रिपादाद् वा तासां निर्गम ईरितः ॥
क्षुद्रनासास्तदर्धाद् वा रामांशाद् वापि कारयेत् ।
नासिकानां तु करणमष्टाधोक्तं पुरातनैः ॥
सिंहपञ्जरमादौ स्यात् पञ्जरं चार्धपञ्जरम् ।
निर्यूहपञ्जरं चैव कथितं लम्बनासिकम् ॥
सिंहश्रोत्रं तथा खण्डनिर्यूहभ्रूषपञ्जरम् ।
द्विदण्डादिचतुर्दण्डविस्तृतं शालयान्वितम् ॥
सूचिपादद्वयोपेतं श्लिष्टप्राकारनीप्रकम् ।
षड्वर्गसहितं व्याससमनिर्गममेव वा ॥
शक्तिध्वजयुतं चापि तथा सम्मुखपट्टिकम् ।
वेदिकाजालकस्तम्भयुक्तं स्यात् सिंहपञ्जरम् ॥
प्रासादनीप्रसंश्लिष्टस्वनीप्रादर्धनिर्गतम् ।
अधिष्ठानाङ्घ्रियुक्तं च प्रस्तरग्रीवसंयुतम् ॥
तद्वत् सशिखरं शक्तिध्वजसम्मुखपट्टिकम् ।
वेदिकाजालकर्णाढ्यं सार्धपञ्जरसंज्ञितम् ॥
प्राग्वच्छ्लेषं च विस्तारपादसम्मितनिर्गमम् ।
व्यासत्रिभागनिर्यूहं वृत्तस्फुटितकर्मवत् ॥
पञ्जराख्यं स्मृतं चाथ स्वतुल्यशिखराग्रकम् ।
श्लिष्टनीप्राङ्ककर्णं च कपोताद्यङ्गसंयुतम् ॥
निर्यूहपञ्जरं स्वेतल्लम्बनासिकमुच्यते ।
संश्लिष्टनीप्रकर्णाङ्घ्रि कृतनागदलाद्यपि ॥
निर्यूहसहितं युक्तसर्वाङ्गं लम्बनासिकम् ।

तोरणानि मान०

पत्रं पुष्पं च रत्नं च चित्रतोरणमेव च ।
एवं चतुर्विधं प्रोक्तं देवानां च त्रिमौलिनाम् ॥
अन्येषां भूपतीनां च पुष्पं रत्नं च तोरणम् ।
पत्रवल्ल्यादिभिः संभूष्य पत्र तोरणमीरितम् ॥
नानापुष्पैरलंकृत्य पुष्पतोरणमेव च ।
सर्वरत्नैरलंकृत्य कर्तव्यं रत्नतोरणम् ॥
नानालङ्कारसंयुक्तं यक्षविद्याधरादिभिः ।
तच्चित्रतोरणं प्रोक्तं पूर्वोक्तानां तु संमतम् ॥
सर्वेषां तोरणमध्ये चोर्ध्वे तुम्बुरुनारदम् ।

तत्प्रदेशे द्विपार्श्वे तु मकरादिविभूषितम् ॥
तोरणस्याग्रमूले तु गृहा (ग्राह) पत्रैश्च भूषितम् ।
तोरणार्धं तु पत्रादिभूतवल्यासनान्वितम् ॥
पादानां च द्विपार्श्वे तु व्यालं तोरणधारिणम् ।
पत्रतोरणमित्युक्तं शेषं युक्त्या प्रयोजयेत् ॥
तदेव रत्नपुष्पैश्च नानालङ्कारसंयुतम् ।
यक्षविद्याधराद्यैश्च युक्तं स्याच्चित्रतोरणम् ॥
ग्राहकिन्नरीसंयुक्तं चित्रपत्रादिभिर्विना ।
सर्वाङ्गं पुष्पसंयुक्तं सर्वालङ्कारसंयुतम् ॥
पुष्पतोरणमित्युक्तं मकरन्दैश्च पुष्पकम् ।
सर्वाङ्गं नवरत्नैश्च ग्राहकिन्नरभूषितम् ॥
ग्राहपुच्छादिसर्वेषां सर्वरत्नेन बन्धयेत् ।
रत्नतारागणैर्युक्तं कुक्षिरावृतलम्बितम ॥
तोरणस्योपरि देशे तु भुजङ्गपादद्वयोरपि ।
ग्राहान्तं सर्वरत्नैश्च पूरितं श्रेणिसंयुतम् ॥
रत्नतोरणमित्युक्तं सर्वालङ्कारसंयुतम् ।
वाजनपादालङ्कारं सर्वं प्रागुक्तवन्नयेत् ॥
तोरणस्य कृतं मध्ये कमलं कुर्यात् तु वारणम् ।
तन्मध्ये कल्पयेल्लक्ष्मीं नानालङ्कारभूषिताम् ॥
ताटिकाफलकामुष्टिबन्धनं पत्रवल्लिकम् ।
मकरं किन्नरीवक्त्रं नाटकादौ भुजङ्गवत् ॥
केसरिमण्डनं भवति चित्रतोरणनाटकैः ।
पत्रपुष्पमयरत्नतोरणैः चित्रहीनमित्युच्चभूषणैः ॥
कल्पयेत्त्वपि च रत्नतोरणैः चित्रहीनमित्युच्चभूषणैः
कल्पयेत्त्वपि च तोरणैः पुष्पहीनमथ पत्रहीनकम् ॥
रत्नहीनमथ पत्रतोरणैः पद्मयुक्तमथ पुष्पतोरणैः ॥
पत्रपुष्पनहि (हीनं) चान्यभूषणम् ।
कल्पयेत्त्वपि शिल्पिभिर्वरैः ॥

चतुर्थः पटल

राज-भवन-सज्जा

यन्त्राणि

समराङ्गण-सूत्रधारात्—

यन्त्रनिर्वचनम्	यदृच्छया प्रवृत्तानि भूतानि स्वेन वर्त्मना ।
३१. ३-४	नियम्यास्मिन् नयति यद् तद् यन्त्रमिति स्मृतम् ॥
यन्त्रबीजानि	तस्य बीजं चतुर्धा स्यात् क्षितिरापोऽनलोऽनिलः ।
३१. ५	आश्रयत्वेन चैतेषां वियदप्युपयुज्यते ।
यन्त्रकोट्यः	स्वयंवाहकमेकं स्यात् सकृत्प्रेर्यं तथापरम्
३१. १०-१२	अन्यदन्तरितं वाह्यं वाह्यमन्यत् त्वदूरतः ॥
	स्वयंवाहकमिहोत्कृष्टं हीनं स्यादितरत् त्रयम् ।
	तेषु शंसन्ति दूरस्थमलक्ष्यं निकटस्थितम् ।
पार्थिवादीनां	पार्थिवं पार्थिवैर्बीजैः पार्थिवं जलजन्मभिः ॥
पदार्थानां बीजानि	तदेव तेजोजनितैस्तदेव मरुदुद्भवैः ।
बीजबीजिभावविक-	आप्यमाप्यैस्तथा बीजैरानलैरानिलैरपि ॥
ल्पनानां नानात्वम्	वह्निजैश्च मरुज्जातैः पार्थिवैर्वारुणैरपि ।
३१. २१-४२॥	मारुतं मारुतैराप्यैः पार्थिवैरानलैस्तथा ॥
	वह्निजातेऽपि बीजं स्यात् सूतः सोपि च वा(न?नि)ले ।
	पार्थिवानां भवेद् बीजमाप्यानामपि वा(रुणे?रुणम्)॥
	इति बीजानि सर्वेषां कीर्तितान्यखिलान्यपि ।
	कु 'करणसूत्राणि भारगोलकपीडनम् ॥
	लम्बनं लम्बकारे च चक्राणि विविधान्यपि ।
	अयस्ताम्रं च तारं च त्रपु संविघ्नमर्दने ॥
	काष्ठं च चर्म वस्त्रं च स्वबीजेषु प्रयुज्यते ।
	डर्दकः कर्तरो यष्टिश्चक्रं भ्रमरकस्तथा ॥
	शृङ्गावली च नाराचः स्वबीजान्यौर्वरे विदुः ।
	ताप उत्तेजनस्तोभः क्षोभश्च जलसङ्गजः ॥
	एवमाद्यग्निबीजानि पार्थिवस्य प्रचक्षते ।
	धारा च जलभारश्च पयसो भ्रमणं तथा ॥
	एवमादीनि भूजस्य जलजानि प्रचक्षते ।
	यथोच्छ्रायो यथाधिक्यं यथा नीरन्ध्रतापि च ॥

अत्यन्तमूर्ध्वगामित्वं स्वबीजान्ययसस्तथा।
मरुत् स्वभावजो गाढैर्ग्राहकैश्च प्रतीप्सितः॥
इत्याद्यैर्वीजनाद्यैश्च गजकर्णादिभिः कृतः।
(छा?चा)णितो गालितश्चायं वीजं भवति भूभत्रे॥
काष्ठं (भृ?कृ) त्तिश्च लौहं च जलजे पार्थिवं भवेत्।
अन्यदम्भस्तदप्यस्तु तिर्यगूर्ध्वमधस्तथा॥
बीजं स्वकीयं भवति यन्त्रेषु जलजन्मसु।
तापाद्यं पूर्वकथितं वह्निजं जलजे भवेत्॥
सङ्गृहीतश्च दत्तश्च पूरितः प्रतिनोदितः।
मरुद् बीजत्वमायाति यन्त्रेषु जलजन्मसु॥
वह्निजातेषु मृत्ताम्रलोहरुक्मादि तद्ग्रहे।
पार्थिवं कथयन्तीह बीजं बीजविचक्षणाः॥
वह्निर्वह्नेर्भवेद् बीजमपि आपस्तथा भवेत्।
आद्यैरित्यादिभिः प्रोक्तैर्मरुद् गच्छति बीजताम्॥
प्रत्येषकं च जनकं प्रेरकं ग्राहकं तथा।
सङ्ग्राहकं च भूजातं बीजं स्यादनिलोद्भवैः॥
प्रेरणं चाभिघातश्च विवर्तो भ्रमणं तथा।
जलजं मारुतोत्थेषु बीजं स्यादिति सम्मतम्॥
सङ्गृहीतस्य तापाद्यैर्यानि पावकजन्मनि।
प्रकीर्तितानि तान्येव भवन्ति पवनोद्भवैः॥
प्रेरितः सङ्गृहीतश्च जनितश्च समीरणः।
आत्मनो बीजतां गच्छत्येवमन्यत् प्रकल्पयेत्॥
भूतमेकमिहोद्रिक्तमन्यद्धीनं ततोऽधिकम्।
अन्यद्धीनतरं चान्यदेवंप्रायैर्विकल्पितैः॥
नाना भेदा भवन्त्येषां कस्तान् कार्त्स्न्येन वक्ष्यति।

क्रियानिष्पादनाधिष्ठानम् ३१. ४३-४४॥

निष्क्रिया भूः क्रिया त्वंशैः शेषेषु सहजा त्रिषु॥
अतः प्रायेण सा जन्या क्षितावेव प्रयत्नतः।
साध्यस्य रूपवशतः संनिवेशो यतो भवेत्॥

यन्त्रगुणाः ३१. ४५-५०

यथावद्बीजसंयोगः सौश्लिष्ट्यं श्लक्ष्णतापि च।
अलक्षता निर्वहणं लघुत्वं शब्दहीनता॥
शब्दे साध्ये तदाधिक्यमशैथिल्यमगाढता।
वहनीषु समस्तासु सौश्लिष्ट्यं चास्खलद्गति॥
यथाभीष्टार्थकारित्वं लयतालानुगामिता।
इष्टकालेऽर्थदर्शित्वं पुनः सम्यक्त्वसंवृतिः॥
अनुल्बणत्वं ताद्रूप्यं दार्ढ्यं मसृणता तथा।

चिरकालसहत्वं च यन्त्रस्यैते गुणाः स्मृताः ॥
एकं बहूनि चलयेद् बहुभिश्चाल्येतऽपरम् ।
सुश्लिष्टत्वमलक्षत्वं यन्त्राणां परमो गुणः ॥

यन्त्र-कर्माणि
३१. ५०-६४

अथ कर्माणि यन्त्राणां विचित्राणि यथाविधि ।
न विस्तरभसङ्क्षेपात् साम्प्रतं संप्रचक्षमहे ॥
कस्यचिद् सा क्रिया साध्या कालः कस्यापि कस्यचित् ।
शब्दः कस्यापि चोच्छ्रायो रूपस्पर्शौ च कस्यचित् ॥
क्रियास्तु कार्यस्य वशादनन्ताः परिकीर्तिताः ।
तिर्यगूर्ध्वमधः पृष्ठे पुरतः पार्श्वयोरपि ॥
गमनं सरणं पात इति भेदा क्रियोद्भवाः ।
कालो मुहूर्तकाष्ठाद्यैर्भिन्नो भेदैरनेकधा ॥
शब्दो विचित्रः सुखदो रतिकृद् भीषणस्तथा ।
उच्छ्रायस्तु जलस्य स्याद् क्वचिद् भूजेऽपि शस्यते ॥
गीतं नृत्यं च वाद्यं च पटहो वंश एव च ।
वीणा कांस्यतालश्च तृमिला करटापि च ॥
यत्किञ्चिदन्यदप्यत्र वादित्रादि विभाव्यते ।
समस्तमपि तद् यन्त्राज्जायते कल्पनावशात् ॥
नृत्ये तु नाटकं चोक्षस्ताण्डवं लास्यमेव च ।
राजमार्गश्च देशी च यन्त्रात् सर्वं प्रसिध्यति ॥
तथा जात्यनुगाश्चेष्टा विरुद्धा यास्तु जातितः ।
ताः सर्वा अपि सिध्यन्ति सम्यग्यन्त्रस्य साधनात् ॥
भूचराणां गतिर्व्योम्नि भूमौ व्योमचरागमैः ।
चेष्टितान्यपि मर्त्यानां तथा भूमिस्पृशामिव ॥
जायन्ते यन्त्रनिर्माणाद् विविधानीप्सितानि च ।
यथासुरा जिता देवैर्यथा निर्मथितोऽम्बुधिः ॥
हिरण्यकशिपुर्दैत्यो नृसिंहेन हतो यथा ।
धावनं हस्तियुद्धं च गजानामगडोऽपि च ॥
नाना प्रकारा याश्चेष्टा नाना धारागृहाणि च ।
दोलाकेल्यो विचित्राश्च तथा रतिगृहाणि च ॥
चित्रा सेना च कुड्यश्च स्वयंवाहकसेवकाः ।
सभाश्च विविधाकारा सत्या मायाः प्रकल्पिता ॥
एवं प्रायाणि चान्यानि यन्त्राद् सिध्यन्ति कल्पनात् ।

विविधानि यन्त्राणि—

शय्या-प्रसर्पण-यन्त्रम्
३१. ६५-६५॥

विधाय भूमिकाः पञ्च शय्या त्वादिभुवि स्थिता ।
प्रतिप्रहरमन्यासु सर्पन्ती याति पञ्चमीम् ॥

एवंप्रयाणि चित्राणि सम्यक् सिध्यन्ति यन्त्रतः ।

पुत्रिकानाडीप्रबोधनम् क्रमेण त्रिशतावर्तं स्थाले दत्ता भ्रमन्त्यसौ ॥

२१. ६६–६६॥ तन्मध्ये पुत्रिका क्लृप्ता प्रति नाडिं प्रबोधयेत् ।

अद्भुतदर्शन-यन्त्रम् वह्नेश्च दर्शनं तोये वह्निमध्याज्जलोद्गतिः ॥

२१. ६७–६८॥ अवस्तुतोऽपि वस्तुत्वं वस्तुतोऽपि तथान्यथा ।

निःश्वासेन वियद् याति श्वासेनायाति मेदिनीम् ॥

क्षीरोदमध्यगा शय्या प्रतीष्टाधः फणाभृता ।

गोलभ्रमण-यन्त्रम् गोलश्च सू(ति?चि)विहितः सूर्यादीनां प्रदक्षिणम् ॥

२१. ६९–६९॥ परिभ्राम्यत्यहोरात्रं ग्रहाणां दर्शयन् गतिम् ।

दारवपुरुषगमनम् गजादिरूपे रथिकरूपतां गमितः पुमान् ॥

२१.७०–७०॥ भ्रान्त्वा नाडिकया तस्याः पर्यन्ते हन्ति(भो?यो)जनम् ।

तैल-प्रक्षेप-यन्त्रम् दीपिकापुत्रिका क्लृप्ता क्षीणं क्षीणं प्रयच्छति ॥

२१. ७१–७१॥ दीपे तैलं प्रनृत्यन्ती तालगत्या प्रदक्षिणम् ।

हस्ति-भूरिपान-यन्त्रम् यावत् प्रदीयते वारि तावत् पिबति सन्ततम् ॥

२१. ७२–७२॥ यन्त्रेण कल्पितो हस्ती न तद् गच्छत् प्रतीयते ।

शुक-गाननर्तनादि- शुकाद्याः पक्षिणः क्लृप्तास्तालस्यानुगमान्मुहुः ॥

२१. ७३–७३॥ जनस्य विस्मयकृतो नृत्यन्ति च पठन्ति च ।

अन्यानीदृशानि पुत्रिका वा गजेन्द्रो वा तुरगो मर्कटोऽपि वा ॥

२१. ७४–७४॥ वलनैर्वर्तनैर्नृत्यंस्तालेन हरते मनः ।

चेत्र-यन्त्रम् येनैव वर्त्मना चेत्रं भ्रियते तेन तत्पयः ॥

२१. ७५–७८ यात्यायाति पुनस्तद्वद् गर्तात् पुष्करिणीष्वपि ।

फलके कानि(?)तिष्ठन्ति धावन्त्यनुमतानि च ॥

घा(तां?तं) ददति युध्यन्ते निर्यान्त्यश्रमनावृतम् ।

नृत्यन्ति गायन्ति तथा वंशादीन् वादयन्ति च ॥

निरुद्धमुक्तस्य वशान्मरुतो यन्त्रभङ्गिभिः ।

याश्चेष्टा दिव्यमानुष्यस्ता एवात्र न केवलम् ॥

दुष्करं यद्यन्यच्च तत्तद् यन्त्रात् प्रसिध्यति

अङ्गुलेन मितमङ्गुलपादेनोच्छ्रितं द्विपुटकं तनुवृत्तम् ।

स्वनोद्गारियन्त्रम् संविधेयमृजु गरन्ध्रं श्लिष्टसन्धि दृढताम्रमयं तत् ॥

२१. ८९–९४ दारवेषु विहगेषु तदन्तः क्षिप्तमुद्गतसमीरवशेन ।

आतनोति विचलन्मृदुशब्दं शृण्वतां भवति चित्रकरं च ॥

सुश्लिष्टखण्डद्वितयेन कृत्वा सरन्ध्रमन्तर्मुरजानुकारम् ।

ग्रस्तं तथा कुण्डलयोर्युगेन मध्ये पुटं तस्य मृदु प्रदेयम् ॥

पूर्वोक्तयन्त्रे विधिनोदरेऽस्य क्षिप्तेऽथ शय्यातलसंस्थमेतत् ।

ध्वनिं ततः सञ्चलनादनङ्गक्रीडारसोल्लासकरं करोति ॥

अस्मिन् शय्यातलविनिहिते मुञ्चति व्यक्तरागं
चित्रा शब्दान् मृगशिशुदृशां या(न्ति?ति)भीत्येव मानः।
किञ्चैतासां दयितमभितो निर्भरप्रेमभाजां
प्रौढिं गच्छन्त्यधिकमधिकं मन्मथक्रीडितानि॥
पटहमुरजे वेणुः शङ्खो विपञ्च्यथ काहला
डमरुटिविले वाद्या तोद्यान्यमून्यखिलान्यपि
मधुरमधिकं यच्चित्रं च ध्वनिं विदधात्यलं
तदिह विधिना रुद्धोन्मुक्तानिलस्य विजृम्भितम्॥

अम्बरचारि विमानम् लघुदारुमयं महाविहङ्गं दृढसुश्लिष्टतनुं विधाय तस्य।
३१. ९५-९८ उदरे रसयन्त्रमादधीत ज्वलनाधारमधोऽस्य चा(ति?ग्नि)पूर्णम्॥
तत्रारूढः पुरुषस्तस्य पक्षद्वन्द्वोच्चालनप्रोज्झितेनानिलेन।
सुप्तस्यान्तः पारदस्यास्य शक्त्या चित्रं कुर्वन्नम्बरे याति दूरम्॥
इत्थमेव सुरमन्दिरतुल्यं स चलत्यलघु दारुविमानम्।
आदधीत विधिना चतुरोऽन्तस्तस्य पारदभृतान् दृढकुम्भान्॥
अयःकपालाहितमन्दवह्निप्रतप्ततत्कुम्भभुवा गुणेन।
व्योम्नो झगित्याभरणत्वमेति सन्तप्तगर्जद्रसराजशक्त्या॥

रस-यन्त्रम् वृत्तसन्धितमथायसयन्त्रं तद् विधाय र तमन्तः।
९९-१०० उच्चदेशविनिधापिततप्तं सिंहनादमुरजं विदधाति॥
स कोऽप्यस्य स्फारः स्फुरति नरसिंहस्य महिमा
पुरस्ताद् यस्यैता मदजलमुचोऽपि द्विपघटाः।
मुहुः श्रुत्वा श्रुत्वा निनदमपि गम्भीरविषमं
पलायन्ते भीतास्त्वरितमवधूयाङ्कुशमपि॥

दास-यन्त्रम् दृग्ग्रीवातलहस्तप्रकोष्ठबाहूरुहस्तशाखादि।
३१. १०१-१०५ सच्छिद्रं वपुरखिलं तत्सन्धिषु खण्डशो घटयेत्॥
श्लिष्टं कीलकविधिना दारुमयं सृष्टचर्मणा गुप्तम्।
पुंसोऽथवा युवत्या रूपं कृत्वातिरमणीयम्॥
रन्ध्रगतैः प्रत्यङ्गं विधिना नाराचसङ्गतैः सूत्रैः।
ग्रीवाचलनप्रसरणविकुञ्चनादीनि विदधाति॥
करग्रहणताम्बूलप्रदानजलसेचन(माणा?णामा)दि।
आदर्शप्रतिलोकनवीणावाद्यादि च करोति॥
एवमन्यदपि चेदृशमेतत् कर्म विस्मयविधायि विधत्ते।
जृम्भितेन विधिना निजबुद्धेः कृष्टमुक्तगुणचक्रवशेन॥

द्वारपाल-यन्त्रम् पुंसो दारुजमूर्ध्वं रूपं कृत्वा निकेतनद्वारि।
३१. १०६ तस्करयोजितदण्डं निरुणद्धि प्रविशतां वर्त्म॥

योध-यन्त्रम् खड्गहस्तमथ मुद्गरहस्तं कुन्तहस्तमथवा यदि तत् स्यात्।
३१. १०७ तन्निहन्ति विशतो निशि चौरान् द्वारि संवृतमुखं प्रसभेन॥

वारि-यन्त्राणि— इदानीं प्रक्रमायातं वारियन्त्रं प्रचक्ष्महे।
१. पातयन्त्रम् क्रीडार्थं कार्यसिद्ध्यै च चतुर्धा ? विदुः॥
३१. १०९–११० निम्नगं भवति द्रोणीदेशादूर्ध्वस्थिताज्जलम्।
यत्र तत् पातयन्त्रः स्याद् वाटिकादिप्रयोजनम्॥
२. उच्छ्रायसमपात- उच्छ्रायसमपाताख्यं यन्त्रोर्ध्वा नाडिका पथः।
यन्त्रम् ३१. ११२ जलाधारगुणान्मुञ्चेदधस्तात् समनाडि(का?कम्)॥
३. पातसमोच्छ्राय- यत्र पातसमुच्छ्रायं पतित्वोच्छ्रायतो जलम्।
यन्त्रम् तिर्यग् गत्वा प्रयात्यूर्ध्वं सच्छिद्रस्तम्भयोगतः॥
३१. ११२–११३ पतित्वोच्छ्रायतस्तोयं तिर्यगूर्ध्वमेत्यथ ।
सच्छिद्रस्तम्भयोगेन तत् स्यात् पातसमोच्छ्रयम्॥
४. उच्छ्रययन्त्रम् वाप्यां वापि च कूपे विधानतो दीर्घिकादिका विहिता।
३१. ११४–११६ यन्त्रोर्ध्वमम्बु गमयति तदिहोच्छ्रयसंज्ञितं कथितम्॥
दारुजमिभस्य रूपं यत् सलिलं पात्रसंस्थितं पिबति।
तन्माहात्म्यं निगदितमेतस्योच्छ्रायतुल्यस्य॥
सलिलं सुरङ्गदेशानीतं निम्नेन वर्त्मना दूरे।
अद्भुतमम्भस्थानं तदिह समोच्छ्रायतः कुरुते॥
धारा-गृह-यन्त्राणि धारागृहमेकं स्यात् प्रवर्षणाख्यं ततो द्वितीयं च।
३१. ११७–११८ प्रणालं जलमग्नं नन्दावर्तं तथान्यदपि॥
प्राकृतजनार्थमेतन्न विधेयं योग्यमेतदवनिभुजाम्।
मङ्गल्यानां सदनं दिव्यमिदं तुष्टिपुष्टिकरम्॥
१. धारागृहम् सलिलाशयस्य सविधे कस्याप्याश्रित्य शोभनं देशम्।
३१.११९–१४१ यन्त्रोत्सेधाद् द्विगुणा त्रिगुणा वा नाडिका कार्या॥
जलनिर्वाहसहासावन्तर्मसृणा बहिश्च नीरन्ध्रा।
निर्व्यूढाम्भसि तस्यां शुभे मुहूर्ते गृहं कार्यम्॥
सर्वाभिरोषधीभिर्युक्तं सहिरण्यपूर्णकुम्भैश्च।
सुविचित्रगन्धमाल्यं विनादितं ब्रह्मघोषेण॥
रत्नोद्भवैर्विचित्रैः स्तम्भैर्युक्तं हिरण्यघटितैर्वा।
रजतोद्भवैः कदाचित् सुरदारुसमुद्भवैरथवा॥
श्रीखण्डोत्थैरथवा सालकमुख्यप्रशस्तवृक्षोत्थैः।
शतसङ्ख्यैर्द्वात्रिंशत्सङ्ख्यैर्यदि वापि षोडशभिः॥
अथवा चतुस्समन्वितविंशतिसङ्ख्यैर्दिनेशसङ्ख्यैर्वा।
भूषितमतिरमणीयैश्चतुर्भिरपि वा विधातव्यम्॥
प्राग्ग्रीवैरतिचित्रैः शालैर्जालैर्विभूषितं विविधैः।
वेदीभिः परिकरितं कपोतपालीभिरभिरामम्॥
रमणीयसालभञ्जिमनेकविधयन्त्रशकुनिकृतशोभम्।
मिथुनैश्च वानराणां जम्भकनिवहैश्च नैकविधैः॥

विद्याधरसिद्धभुजङ्गकिन्नरैश्चारणैश्च रमणीयैर्म ।
नृत्यद्भिः परम(ग?गु)णैः शिखण्डिभिर्मण्डितोद्देशम् ॥
कल्पतरुभिर्विचित्रैश्चित्रलतावल्लिगुल्मसंछन्नम् ।
परपुष्टषट्पदालीमरालमालामनोहारि ॥
प्रवहत्सकलस्रोतः सुश्लिष्टनिविष्टनाडिकं मध्ये ।
सच्छिद्रनाडिकयुतं नानाविधरूपरमणीयम् ॥
सुश्लिष्टनाडिकाग्रे स्तम्भतुलाभित्तिसंश्रिते परितः ।
सम्यक् कृत्वा दृढतरविलेपनं वज्रलेपाद्यैः ॥
लाक्षासर्जरसदृषन्मेषविषाणोत्थचूर्णसंमिश्रम् ।
अतसीकरञ्जतैलप्रविगाढो वज्रलेपः स्यात् ॥
दृढसन्धिबन्धहेतोः स तत्र देयो द्विशः कदाचिद् वा ।
चित्रानुपातयुक्तं प्रदर्शयेन्नृपतये स्थपतिः ॥
कार्याण्यस्मिन् करिणां मिथुनान्यभितोऽम्बुकेलियुक्तानि ।
अन्योन्यपुष्करोज्झितसीकरभयपिहितनयनानि ॥
वर्षानुकृतं चास्मिन् प्रतिमति प्रतिमतङ्गजो वीक्ष्य ।
हनहस्तैर्मदमिव मुञ्चन् जलं कार्यः ॥
स्तनयोर्युगेन सृजती जलधारे तत्र कापि कार्या स्त्री ।
आनन्दाश्रुलवानिव सलिलकणान् पक्ष्मभिः काचित् ॥
नाभिह्रदनदिकामिव विनिर्गतां कापि बिभ्रती धाराम् ।
काप्यङ्गुलीनखांशुभिरिव योषित् सिञ्चली कार्या ॥
एवम्प्रायांश्चित्रान् स्वभावचेष्टान् बहूंश्च रमणीयान् ।
क्षोभान् विधाय कुर्यादाश्चर्यं नरपतेः स्थपतिः ॥
मध्ये तस्य विधेयं सिंहासनममलहेममणिघटितम् ।
तत्रासीदेन्नरपतिरवनिपतिः श्रीपतिर्देवः ॥
स्नायात् कदाचिदस्मिन् मङ्गलगीतैर्विवर्धितानन्दः ।
वादित्रनाट्यनिपुणैर्निषेव्यमाणः सुरेन्द्र इव ॥
य एतस्मिन् गाढग्लपितघनघर्मव्यतिकरे
भूमौ धाराधाम्नि स्फुटसलिलधारे नरपतिः ।
सुखेनास्ते पश्यन् विविधजलशिल्पानि स भवेन्न
मर्त्यः किन्त्वेष क्षितिकृतनिवासः सुरपतिः ॥

२. प्रवर्षणम्
३१. १४२-१४८

जलदकुलाष्टकयुक्तं पूर्ववदन्यद् गृहं समारचयेत् ।
वर्षद्धारानिकरैः प्रवर्षणाख्यां तदाप्नोति ॥
प्रतिकुलमस्मिन् कार्या दिव्यालङ्कारधारिणः पुरुषाः ।
विधिना त्रयः सुरूपाश्चत्वारः सप्त वा सुदृढाः ॥
यन्त्रेण समोच्छ्रायेण तांश्चतुर्थेन वा ततः पुरुषान् ।

कृत्वा सवक्रनालानम्भोभिः पूरयेद् विमलैः ॥
सलिलप्रवेशरन्ध्राण्यखिलानि पिधाय तत्र पुरुषाणाम् ।
अङ्गानि वारिमोक्षाण्यखिलान्यथ मोचयेत् तेषाम् ॥
सलिलं सवक्रनालं द्वारप्रतिरोधमोचनैः पुरुषाः ।
मुञ्चन्ति स्वेच्छममी विचित्रपातेन चित्रकरम् ॥
इत्थमिमान् वारिधरान् सारु(स्या?स्त्या)द् द्वयन्तरेण वा सलिलम् ।
त्र्यन्तरतो वा स्वेच्छं प्रवर्षयेदतिमहच्चित्रम् ॥
इदं नानाकारं कुलभवनमाद्यं रतिपते-
र्निवासश्चित्राणामनुकरणमेकं जलमुचाम् ।
पयःपातैर्ग्रीष्मे रविकरपरीतापशमनं
न केषामत्यर्थं भवति नयनानन्दजननम् ॥

३. प्रणालगृहम्
३१. १४९-१५६

एकेनाथ चतुर्भिः स्तम्भैरष्टभिरथार्कसङ्ख्यैर्वा ।
षोडशभिर्वा कुर्यान्मनोहरं गृहमिह द्वितलम् ॥
भद्रैर्युतं चतुर्भिश्चतुरश्रं सर्वभित्तिसंयुक्तम् ।
ईलीतोरणयुक्तं कर्तव्यं पुष्पकाकारम् ॥
तस्योपरि मध्यगता प्राङ्गणवापी दृढा विधातव्या ।
शतपत्रविहितभूषा तन्मध्ये कर्णिका कार्या ॥
तत्कोणेषु चतुर्ष्वपि रमणीया दारुदारिकाः कार्याः ।
मध्याम्बुजनिहितदृशः सालङ्काराः सश्रृङ्गाराः ॥
पूर्वोक्तयन्त्रयोगात् पद्मासीने वसुन्धराधिपतौ ।
भृङ्गारामलवारिभिरङ्गणवापीं श्रियाच्च ततः ॥
तामिति भृत्वा वापीं तत्सलिलं तदनुपट्टगर्भगतम् ।
छाद्यस्तु गन्धरोभ्रेष्वति रोहति(?)सर्वतो नियतम् ॥
मुखपटलमुत्कीर्णैं रूपैश्चित्रैर्मनोरमैरखिलैः ।
अङ्गैर्वारि विमुञ्चति नासास्यश्रवणनेत्राद्यैः ॥
प्रणालाख्यं धाराभवनमिदमत्यद्भुततरं
स्थितिं धत्ते यस्य क्षितिपतिलकस्याङ्गणभुवि ।
करोत्येतद् वेत्थं स्थपतिरपि बुद्ध्या चतुरया
जगत्येतौ द्वावप्यधिकमहनीयौ कृतधियाम् ॥

४. जलमग्नम्
३१. १५७-१६६

चतुरश्रातिगभीरा वापी कार्या मनोरमा सुदृढा ।
गर्भगतं गृहमस्याः कर्तव्यं लिप्तसन्धि ततः ॥
विहितप्रवेशनिर्गति सुरङ्गयाधौ निवेशितद्वारम् ।
विदधीत चारुरूपैः प्रवर्षकैर्व्याप्तमुपरिष्टात् ॥
चित्राध्यायोदितवर्त्मना ततोलङ्कृतं च चित्रेण ।
तस्य विधेयं मध्यं सलिलाधिपवाससङ्काशम् ॥

ऊर्ध्वविनिर्गमिताब्जैर्नालैस्तत्पट्टकन्दकोद्भूतैः ।
सच्छिद्रकर्णिकागतदिनकरकरनिर्मितोद्योतम् ॥
आपूरयेत् ततोऽनु च पाताम्बुभिरमलकमलपर्यन्तम् ।
विधिनामुनैव सम्यक् प्रविधाय मनोरमं भवनम् ॥
नानारूपकयुक्त्या (उ?व्यु)परचिततसङ्गतोरणद्वारम् ।
शालाभिरायताभिश्चतसृष्वपि चाम्बुसम्भवैर्युक्ताम् ।
कुर्यादम्भोजवतीं वापीमाहार्ययोगेन ॥
सामान्तमुख्यपुरुषा राजाज्ञालब्धसंश्रयास्तत्र ।
परराष्ट्रागतदूतास्तिष्ठेयुर्निहितमिह भृताः ॥
अथ स यथाविधि सलिलक्रीडां प्रोक्तमार्गरूपाणाम् ।
दृष्ट्वा मुदितः कुर्यात् पर्यङ्कारोहणं नृपतिः ॥
तत्र स्थितस्य नृपतेः परिवारितस्य
वाराङ्गनाभिरभितो जलमग्नधाम्नि ।
पातालसद्मनि यथा भुजगेश्वरस्य
निस्सीमसम्भृतरतिर्भवति प्रमोदः ॥

५. नन्द्यावर्तम्
२१. १६७-१७२

पूर्वोक्तवापिकायां मध्ये स्तम्भैश्चतुर्भिरुपरचितम् ।
मुक्ताप्रवालयुक्तं पुष्पकमथ कारयेल्लटभम् ॥
वापीं परितः पुष्पकमापूर्य सुनिर्गमाभिरथ सुदृढम् ।
गर्भस्वहितकभित्तिभिरूपहितशोभं समन्ततः कुर्यात् ॥
पूर्वोक्तवारियोगात् पूर्णामाकर्णतो विधायैताम् ।
जलकेलिषु सोत्कण्ठो महीपतिः पुष्पकं यायत् ॥
कुर्वीत नर्मसचिवैर्विलासिनीभिश्च सार्धमवनिपतिः ।
तद्भित्यन्तरवर्ती निमज्जनोन्मज्जः क्रीडाम् ॥
एकत्र मग्नैरपरत्र दृष्टैरन्यत्र हत्वा सलिलेन नष्टैः ।
क्रीडत्यलं केलिकरैः सहायैर्नृपः सुखं मज्जनपुष्करिण्याम् ॥
वापीतलस्थितमथ त्रपयावनम्र-
माच्छादिस्तनभरं करपल्लवेन ।
गाढवसक्तवसनं जलरोधमुक्ता-
वालोकते प्रणयिनी जनमत्र धन्यः ॥

दोला-यन्त्राणि पञ्चविधाः
२१. १७३-१७५

रथदोलादिविधानं दारवमभिदध्महे वयं सम्यक् ।
यन्त्रभ्रमणककर्म प्रकीर्तितं पञ्चमं यत् तत् ॥
तत्र वसन्तः प्रथमो मदननिवासी वसन्ततिलकश्च ।
विभ्रमकस्त्रिपुराख्यः पञ्चैते दोलकाः कथिताः ॥

१. वसन्तः
२१. १७५-१८७

निखनेच्चतुरः स्तम्भान् समैकसूत्रोपगान् ऋजून् सुदृढान् ।
सदृशान्तरान् धरिणीवशतः सुरिल(घण?ष्ट) पीठगतान् ॥

प्रासादस्योक्तदिशि प्रविदध्यात् विरचिताष्टकरदैर्ध्यम् ।
भूमिगृहं रमणीयं तदर्धतो विहितगाम्भीर्यम् ॥
तद्गर्भतले स्तम्भो लोहमयाधारसंस्थितः कार्यः ।
भ्रमसहितः पीठयुतो ग्रस्तरच्छादकतुलाभिः ॥
संस्थाप्योपरि पीठस्य कुम्भिकामतिदृढां विभक्तां च ।
धनुरूच्छ्रितैस्ततोऽमूमष्टभिरावेष्टयेद् भद्रैः ॥
स्वेच्छमथ भूमिकोच्छ्रयमस्योर्ध्वे कल्पयेन्नितान्तमृजुम् ।
निदधीत वेष्टनोर्ध्वे पट्टयुतं स्तम्भशीर्षं च ॥
हीरग्रह(ग?) पर्यन्ता मदला गजशीर्षिका विधातव्या ।
सुदृढा प्रयत्नरचिता मनोभिरामा यथाशोभम् ॥
पट्टस्योपरि कार्या चतुष्किका चेत्रमानतोऽभीष्टात् ।
तस्यामुपरि विधेयस्तलबन्धो दृढतरन्यासः ॥
स्तम्भैर्द्वादशभिरथ चेत्रे युक्त्या समुच्छ्रितैर्भद्रैः ।
रूपवतीकोणस्थितिरधिका भूः प्रथमिका कार्या ॥
मध्ये भ्रमश्च तस्या गर्भस्तम्भप्रतिष्ठितः कार्यः ।
चेत्रप्रमाणवशतस्तां पश्चाच्छादयेत् पट्टः ॥
रथिकाशिखाग्रकेषु च फलका(म?व) रणस्य तद्वदुपरिष्टात् ।
भ्रमचक्राणि न्यस्येन्मध्ये स्तम्भे च पञ्चैव ॥
अत उपरि यथाशोभं हि भूमिका पुष्पकाकृतिः कार्या ।
मध्यस्तम्भाधारा कृतकलशविभूषणा शिरसि ॥
स्तम्भे (व?ध) स्ताद् भ्रमिते भृशं भ्रमत्यर्धभूमिका तत्र ।
रथिकाभ्रमरकयुक्ता परस्परं चक्रयन्त्रेण ॥
वसन्तरथिकाभ्रमे समधिरूढवाराङ्गना
परिभ्रमणसम्भृताभ्यधिकविभ्रमं भूपतिः ।
करोति नयनोत्स(वस्त्रि?वंत्रि) दशधाम्नि यत्कीर्तनं
वसन्तसमये भवत्यमलकीर्तिधामैव सः ॥

२. सदन-निवासः
२१, १८८–१९१

आरोप्य स्थिरमेकं स्तम्भं भूमीगृहादिरहितमथ ।
हस्तचतुष्कोच्छ्राया कार्योपरि भूमिका चास्य ॥
मध्ये भ्रमरकयुक्तं शेषं पूर्ववदिहाचरेदखिलम् ।
पुष्पकमपि च स्तम्भे शिथिलं कलशोच्छ्रितं कुर्यात् ॥
तस्योपरि च ग्रीवा चतुरासनसंयुता विधातव्या ।
घण्टास्तम्भौ कार्यौ स्तम्भेन महाबलौ तत्र ॥
एवं पुष्पकभूमिकान्तरतलस्थायी निगूढो जनो
यावद् भ्रामकयन्त्रचक्रनिकरं सम्यक् क्रमाचालयेद् ।
तावत् ता रथिकासना मृगदृशस्तत्र स्थिताः पुष्पके

कामावासकुतूहलार्पितदृशो भ्राम्यन्ति सर्वा अपि ॥

३. वसन्ततिलकः
३१. १९२–१९५

अथ कोणगतान् स्तम्भांश्चतुरो विनिवेशयेद् ऋजून् सुदृढान् ।
सुश्लिष्टपीडसंस्थान् समान्तरा मेदिनीदशतः ॥
तेषामुपरि (लता?तला)न्तरसंयुक्ता भूमिका विधातव्या ।
रथिकास्तत्र चतस्रो जायन्ते पूर्ववद् दिक्स्थाः ॥
तदुपरि तथार्धभूमिः कार्या सुश्लिष्टदारुसन्धाना ।
मध्यभ्रमरकयुक्ता सरूपका मत्तवारणयुता च ॥
नानाविधकर्मवती वसन्तो वाह्यरेखा स्यात् ।
अन्योन्ययन्त्रपरिघट्टनदोल्यमान-
निश्शेषचक्ररथिकाभ्रमणाभिरामम् ।
दृष्ट्वा वसन्ततिलकं सुरमन्दिराणां
भूषायमाणमुपयाति न विस्म(यत्वं?यं कः) ॥

४. विभ्रमकः
३१. १९६–२००

प्रविधाय रङ्गभूमिं प्रथमां शास्त्रान्तराधरस्यार्थे(?) ।
चतुरश्रा रूपवती सचतुर्भद्रा विधेया भूः ॥
प्रतिकोणमाग (त?ता)स्या भद्रेषु भवन्ति संयता भ्रमराः ।
अत उपरिष्टाद् भूम्या भ्रमराश्चाष्टासनाः कार्याः ॥
रेखाः शुद्धाः कार्या वहिरन्तश्चित्रिताश्चान्याः ।
पीठेषु मध्य(ग?सं)स्थास्ततोऽपरा भूमिकाः कार्याः ॥
पीठस्य मध्यसंस्थैरन्योन्यारालियोजितैश्चक्रैः ।
सर्वे वेगाद् भ्राम्यन्ति सान्त (ना?रा) विभ्रमे भ्रमराः ॥
दोलासनो विहितवारवधू (कृ?भृ) ताति-
चित्रेण यस्त्रिदशधामसु विभ्रमेण ।
पृथ्वीपतिर्मुदमुपैति समुल्लसन्ती
कीर्त्तिर्न माति भुवनत्रितयेऽपि तस्य ॥

५. त्रिपुराख्यः
३१; २०१–१२२

चतुरश्रमथ क्षेत्रं कुर्वांशैर्भाजितं ततोऽष्टाभिः ।
कोणैः शेषैस्तस्मिंश्च कल्पयेद् भद्रम् ॥
तद्द्विगुणमूर्ध्वमेतस्य भूमिकाभागसङ्ख्यया कार्यम् ।
तत्राद्यंशचतुष्केण भूमिका स्यात् समुच्छ्रयतः ॥
तत्राष्टपट्चतुर्भागवर्जिता भूमिका उपर्युपरि ।
क्रमशो भवन्त्यथैवं ताः स्युस्तिस्रोऽर्धसंयुक्ताः ॥
शेषांशोच्छ्रयुक्ता घण्टा चतुरश्रायता कार्या ।
चित्रतुर्भूम्यौ कार्ये सपट्चतुर्भागविस्तारे ॥
रङ्गः स्यादाद्यभुवि द्वितीयभुवि कोणगास्तथा रथिकाः ।
स्युर्भद्राकृतियुक्ता दोला अपि तत्र रमणीयाः ॥
रथिकास्तृतीयभूमौ कार्या भद्रेषु चातिरमणीयाः ।

कोणेष्वथासनान्यर्धवास्तुकेऽपि भ्रमः कार्यः ॥
दोलारथिके चतुरासने भ्रमोऽष्टासनो भवेत् तत्र ।
आसनमिह तत् कथितं युवतेः स्थानं यदेकं स्यात् ॥
निखिलान्यपि भ्रमणसंमुखं तानि विभ्रतिभ्रमणम् (?) ।
यत्रासनानि स इह भ्रम इत्युक्तोऽपराधिका (?) ॥
यष्टेरूर्ध्वमधस्ताद् भ्रमस्य चक्रं(नि)योजयेदेकम् ।
लघुचक्राणि च तद्वन्नियोजयेदासनेष्वत्र ॥
लघुचक्रारकवृत्ते संलग्नाः कीलका दृढाः कार्याः ।
तुल्यान्तराः समस्ता प्रलघु(क) चक्रारवृन्तगताः ॥
रथिकाशिखाग्रचक्रं भ्रमचक्रारक(वि?) नियोजितं कार्यम् ।
यष्टिचतुष्टयमस्मिंस्तिर्यक् चक्रद्वयोपेतम् ॥
ऊर्ध्वं द्वितीयभूमेस्तृतीयभूमेरथान्तरे कुर्यात् ।
नियतं रथिकायष्टिभ्रमसंलग्नानि यन्त्राणि ॥
आसनाधारयष्टीनां रथिकाचक्रयोजितान् ।
अतः समान्तरान् कुर्याच्चतुरः परिवर्तकान् ॥
त(द्व)द् द्वितीयभूमीदोलागर्भे समान्तरे यष्टी ।
लग्ने तथैकचक्रे याम्योत्तरचक्रयोर्न्यस्येत् ॥
तद्वदधो भूकोणगरथिकाचूडाग्रचक्रसंसक्ताः ।
यष्टीस्ततश्चतस्रो द्विचक्रका इतरचक्रयोर्न्यस्येत् ॥
प्रान्तचक्रद्वये कोणरथिकाचक्रयोजिता ।
दोलागर्भगता यष्टिस्तिर्यक् कार्यापरापरा ॥
पूर्वं भद्रे द्वारं कुर्यात् सोपानराजितमधस्तात् ।
गर्भात् पश्चिमभागे निवेशयेद् देवतादोलाम् ॥
अन्योन्यं चक्रभ्रममिच्छामुक्तिं विधानतः सम्यक् ।
ज्ञात्वा प्रयोजनीयं शीघ्रवहं मन्दवहनं वा ॥
एष समासेन यथा भ्रममार्गः कीर्तित स्फुटोऽस्माभिः ।
अन्येष्वपि कर्तव्यः सम्यग् भ्रमहेतवे तद्वत् ॥
स्तम्भादिद्रव्याणां विन्यासैः कल्पितं दृढैः श्लक्ष्णैः ।
सुश्लिष्टसन्धिबन्धं धृतं तथा दीर्घमुख्यधरैः ॥
परिवारितमथ तिलकैः समन्ततः सिंहकर्णसंयुक्तम् ।
त्रिपुरं सम्यक् कुर्याद् विचित्ररूपं (स्व)कैश्चित्रैः ॥
बुद्ध्या क्लृप्तैः पूर्वयन्त्रैश्च युक्तं यन्त्राध्यायं वेत्ति यः सम्यगेतम् ।
प्राप्नोत्यर्थान् वाञ्छितात् कीर्तियुक्तान् स क्ष्मापालैरन्वहं पूज्यते च ॥

पञ्चमः खण्डः

प्रथमः पटलः

प्रासाद-वास्तु

प्रासाद-लक्षणम्—सामान्यम्—

लोक-व्यवहारः	देवादीनां नराणां च येषु रम्यतया चिरम्।
शिल्प० १६-१	मनांसि च प्रसीदन्ति प्रासादास्तेन कीर्तिताः॥
शास्त्रीयार्थश्च	प्रासादं यच्छिवशक्त्यात्मकं तच्छक्त्यन्तैः।
ईशा० ३.१२-१६	स्याद्वसुधाद्यैस्तु तत्वैः॥
	शैवीः मूर्तिः खलु देवालयाख्ये—
	त्यस्माद् ध्येया प्रथमं चाभिपूज्या॥
प्रासाद-प्रयोजनम्	कृत्वा प्रभूतं सलिलमारामान्विनिवेश्य च।
बृ० सं०	देवायतनं कुर्याद्यशोधर्माभिवृद्धये॥
	इष्टापूर्तेन लभ्यन्ते ये लोकास्तान् बुभूषता।
	देवानामालयः कार्यो द्वयमप्यत्र दृश्यते॥

प्रासादोत्पत्तौ—प्रासादस्य आध्यात्मिकायां प्रतिकृतौ

(अ) प्रासादः पुरुष मूर्तिः

(ब) प्रासादो भगवती मूर्तिः—

टि०— तत्र प्रतिपादित-ग्रन्थ भागे (४०१-४ पृष्ठेषु) अवलोकनीयं भवेत्।

प्रासादस्य भौतिकप्रतिकृतौ च।

(अ) वैदिकी चितिः

(ब) वैदिक-सद-संस्थाः

(स) पाषाण-पट्टिकाः

(य) अवैदिक-देव-गृहाः

(स) पर्वताकृतयः

(य) गुहा-निवासाश्च

टि०— तत्र प्रतिपादित-ग्रन्थ-भागे (४०६-१४ पृष्ठेषु) प्रतिपाद्यमानाः सन्ति न तेषां लक्षणानि वास्तु-ग्रन्थेषु उपलभ्यन्ते अत उपश्लोक्यमानैः तैः प्रीयन्ताम्।

प्रासादाः विमान-मूलाः

स० सू० ४६. २-८	पुरा ब्रह्मासृजत् पञ्च विमानान्यसुरद्विषाम्।
	वियद्वर्त्मविचारीणि श्रीमन्ति च महन्ति च॥

तानि वैराजकैलासे पुष्पकं मणिकाभिधम्।
हैमानि मणिचित्राणि पञ्चमं च त्रिविष्टपम्॥
आत्मनः शूलहस्तस्य धनाध्यक्षस्य पाशिनः।
सुरेशिने च विश्वेशो विमानानि यथाक्रमम्॥
बहून्यन्यानि चैवं स सूर्यादीनामकल्पयत्।
विशेषाग्र्यथोक्तैस्तान्याकारै प्रतिदैवतम्॥
प्रासादांश्च तदाकारान् शिलापक्वेष्टकादिभिः।
नगराणामलङ्कारहेतवे समकल्पयत्॥
वैराजं चतुरश्रं स्याद् वृत्तं कैलाससंज्ञितम्।
चतुरश्रायताकारं विमानं पुष्पकं भवेत्॥
वृत्तायतं च मणिकमष्टाश्रि स्यात् त्रिविष्टपम्।
तद्भेदान् श्रीमतोन्यांश्च विविधानसृजत् प्रभुः॥

(ii) ५५. १०४-५ कीर्तितानि विमानानि यान्येव सुरवर्त्मनि॥
तान्येव स्थावरत्वेन प्रासादा इति विश्रुताः॥

(iii) ५६. १-८ अथातः सम्प्रवक्ष्यामि प्रासादान् शिखरान्वितान्।
रुचकादींश्चतुःषष्टिं नामलक्षणतः क्रमात्॥
पूर्वं यानि विमानानि पञ्चोक्तान्यभवंस्ततः।
तदाकारभृतः सर्वे प्रासादाः पञ्चविंशतिः॥
शिखरैर्विविधाकारैरेकेनाण्डेन भूषिताः।
केचिदण्डत्रयोपेताः केचित् पञ्चाण्डकान्विताः॥
ईषद्भेदेन ते ज्ञेयाः प्रासादाः सर्वकामदाः।
सौवर्णा राजताश्चैव देवानां सततं प्रियाः॥
मणिमुक्ताप्रवालाद्यैर्भूषणैः सुविभूषिताः।
रीतिकाताम्रघोषाद्यैः पिशाचोरगरक्षसाम्॥
देवलोका भवन्त्येते कामस्वच्छन्दचारिणः।
पाताले चापि निर्दिष्टाः पाषाणैः स्फाटिकैस्तथा॥
इष्टकाकाष्ठपाषाणैर्मर्त्यलोकेऽपि नन्दकाः।
सुखदाश्च भवन्त्येते कर्तुः कारयितुस्तथा॥
लक्षणेनान्वितानेतान् कथयामो यथाविधि।
पुराणां भूषणार्थाय भुक्तिमुक्तिप्रदा नृणाम्॥

(ii) ५६. १-२ विमानमथ वक्ष्यामः प्रासादं शम्भुवल्लभम्।
स्वर्गपातालमर्त्यानां त्रयाणामपि भूषणम्॥
सर्वेषां गृहवास्तूनां प्रसादानां च सर्वतः।
प्रासादो मूलभूतोऽयं तथाच परिकर्मणाम्॥
... ...

तेषु वैराज-भेदाः चतुरश्राः ब्राह्म-प्रासादाः

स० सू० रुचकश्चित्रकूटश्च तृतीयः सिंहपञ्जरः ।
४६. १०–१२॥ भद्रः श्रीकूट उष्णीषः शालाद्यो गजयूथपः ॥
नन्द्यावर्तोऽवतंसाह्वः स्वस्तिकः क्षितिभूषणः ।
भूजयो विजयो नन्दी श्रीतरुः प्रमदाप्रियः ॥
व्यामिश्रो हस्तिजातीयः कुबेरो वसुधाधरः ।
सर्वभद्रो विमानाख्यो मुक्तकोणश्च नामतः ॥
चतुर्विंशतिरुद्दिष्टा चतुरश्राः समासतः ।

कैलास-भेदाः १० वृत्ताः शैव-प्रासादाः

४६. १३–१४॥ वृत्तांस्तथाभिधास्यामः प्रासादानपरानपि ।
वलयो दुन्दुभिः प्रान्तः पद्मः कान्तश्चतुर्मुखः ॥
माण्डूकाख्योऽथ कूर्मश्च तालीगृह उलूपिकः ।
इति वृत्ताः समासेन प्रासादा दश कीर्तिताः ॥

पुष्पक-प्रभेदाः चतुरश्रायताः १० कौबेर-प्रासादाः

४६. १५–१६॥ चतुरश्रायता ये स्युः कथ्यन्ते तेऽपि नामतः ।
भवो विशालः साम्मुख्यः प्रभवः शिबिरागृहः ॥
मुखशालो द्विशालश्च गृहराजोऽमलो विभुः ।
एवमेते समुद्दिष्टाश्च तुराश्रयता दश ॥

मणिक-प्रभेदाः वृत्तायताः १० वारुण-प्रासादाः

४६, १७–१८॥ अथ वृत्तायतान् ब्रूमः प्रासादानभिधानतः ।
आमोदो रैतिकस्तुङ्गश्चारुभूतिर्निषेवकः ॥
सदा-निषेधः सिंहाख्यः सुप्रभो लोचनोत्सवः ।
एते वृत्तायताः प्रोक्ताः प्रासादा नामतो दश ॥

त्रिविष्टप-प्रभेदाः अष्टाश्राः १० वैष्णव-प्रासादाः

४६. १९–२१ अष्टाश्रीणां च नामानि कथयामि समासतः
वज्रको नन्दनः शङ्कुर्मेखलो वामनो लयः ॥
महापद्मश्च हंसश्च व्योमचन्द्रोदयाविति ।
अष्टाश्रय इमे प्रोक्ताः प्रासादा दशसंख्यया ।
भवन्त्येवं चतुष्टष्टिर्लक्ष्मैषामधुनोच्यते ।

तेषु एकस्य स्वस्तिकस्य लक्षणं यथा—

स० सू० ४६. ६२–६७ स्वस्तिकः प्रोच्यतेऽधुना ।
चतुरश्रीकृते क्षेत्रे षड्भागप्रविभाजिते ॥
प्रासादं कल्पयेन्मध्ये द्विभागायामविस्तृतम् ।
द्वारपार्शोऽस्य भागार्धविस्तृतो भागिकोदयः ॥

गर्भवेश्म चतुःस्तम्भमलिन्दो भागिको वहिः।
तस्य स्युर्द्वादश स्तम्भा भागिकोऽलिन्दकोऽपरः॥
विंशतिस्तम्भसंयुक्तो विधातव्यः समन्ततः।
चयावृतश्च पुरतो भागो वाष्टधराग्न्वितः॥
भागमेकैकमुत्सृज्य कर्णाभ्यां भागविस्तृतौ।
भागिकोच्छ्रायनिष्कासौ कार्यौ प्राग्रीवकौ पुनः॥
वाह्यतो भित्तिसंश्लिष्टौ त्रिदिशं सगवाक्षकौ।
स्वस्तिकोऽयं समाख्यातः प्रासादश्चित्रलक्षणः॥

व शिखरोत्तमाः

स० सू० ५२.२१–२२

प्रथमो रुचकस्तेषु द्वितीयो वर्धमानकः।
अवतंसस्तृतीयस्तु चतुर्थो भद्र उच्यते॥
पञ्चमः सर्वतोभद्रः षष्ठः स्यान्मुक्तकोणकः।
मेरुमन्दर इत्यष्टौ विज्ञेयाः शिखरोत्तमाः॥

स भूमिकायुक्ताः

टि० तत्र द्राविडप्रासादेषु विलोकनीयाः

प्रासादरचनायांशिखरादिविरचना:

भिद्रः
प्रा० म०
३. १–४

अतिस्थूला सुविस्तीर्णा प्रासादाधारिणी शिला।
अतीव सुदृढा कार्या इष्टकाचूर्णवारिभिः॥
शिलोपरि भवेद्भिट्टमेकहस्ते युगाङ्गुलम्।
अर्द्धाङ्गुला भवेद् वृद्धिर्यावद्धस्तशतार्द्धकम्॥
अङ्गुलेनांशहीनेन अर्धनार्धेन च क्रमात्।
पञ्च-दिक-विंशतिर्यावच्छतार्धं च विवर्धयेत्॥
एक-द्वि-त्रीणि भिट्टानि हीनहीनाति (नि?)कारयेत्।
स्व-स्वोदयप्रमाणस्य चतुर्थांशेन निर्गमः॥

पीठम्
३. ५–१४

[श्रीः] पीठमर्ध त्रिपादांशैरेकद्वित्रिकरे गृहे।
चतुर्हस्ते त्रिसार्धांशं पादांशं पञ्चहस्तके॥
दश-विंशति-षट्त्रिंशद्-शतार्धं हस्तकावधिः।
वृद्धिर्वेदत्रियुग्मैकसंख्या स्यादङ्गुलैः क्रमात्॥
पञ्चाशहीन (?) माधिक्यमेकैकं तु त्रिधा पुनः।
त्रिपञ्चाशत् समुत्सेधे द्वाविंशत्यंशनिर्गमे॥
नवांशो याड्यकुम्भश्च सप्तांशं कणकं भवेत्।
सान्तरं सकपोतालिः सप्तांशा ग्रासपट्टिकाः॥
सूर्य-दिग्-वसुभागैश्च गजवाजिनराः क्रमात्।
वाजिस्थानेऽथवा कार्यं स्वं स्वं देवस्य वाहनम्॥

पञ्चांशा कर्णिकाग्रे तु निर्गमो जाड्यकुम्भकम् ।
त्रिसार्द्धे कणकं सार्धं चतुर्भिर्ग्रासपट्टिका ॥
कुञ्जराश्च नरा वेदा रामयुग्मं च निर्गमः ।
अन्तरालमधस्तेषामूर्ध्वाधः कर्णयुग्मकम् ॥
गजपीठं विना स्वल्पद्रव्ये पुण्यं महत्तरम् ।
जाड्यकुम्भः कणाली च ग्रासपट्टी तदा भवेत् ॥
कामदं कणपीठं च जाड्यकुम्भः कणालिका ।
त्तिने निर्गमे हीने साधारे निर्गमाधिकम् ॥
सर्वेषां पीठमाधारः पीठहीनं निराश्रयम् ।
पीठहीनं विनाशाय प्रासादभुवनादिकम् ॥

मण्डोवरः
प्रा० म०
३. १५–२३

हस्तादिपञ्चपर्यन्तं विस्तरेणोदयः समः ।
स क्रमान्नव सत्येपुरामचन्द्रोऽङ्गुलाधिकः ॥
पञ्चादिदशपर्यन्तं त्रिंशद्यावच्छतार्धकम् ।
हस्ते हस्ते क्रमाद्वृद्धिः मनुसूर्यनवाङ्गुला ॥
एकहस्तादिपञ्चान्तं पृथुत्वेनोदयः समाः (मः?) ।
हस्ते सूर्याङ्गुला वृद्धिर्यावत् त्रिंशतकरावधि ॥
नवाङ्गुला करे वृद्धिर्यावद्धस्तशतार्धकम् ।
पीठोर्द्धे उदयश्चैवं च्छाद्य (?)न्ते नागरादिकम् ॥
एकविंशत् (?) पञ्चशते प्रासादस्य समुच्छ्रयः ।
पञ्चादिनवभागान्तं पीठस्य पञ्चधोदयः ॥
वेदवेदेन्दुभक्ते तु च्छाद्यन्ते (?) पीठमस्तकात् ।
खुरकः पञ्चभागं स्याद्विशती कुम्भकस्तथा ॥
कलशोऽष्टौ द्विसार्धं तु कर्त्तव्यं मन्तरालकम् ।
कपोतिकाष्टौ मञ्ची स्यात् कर्त्तव्या नवभागिका ॥
पञ्चत्रिंशतपदा जङ्घा तिथ्यंशैरूद्‌गमो भवेत् ।
वसुभिर्भरणी कार्या शिरापट्टी दशांशिका ॥
अष्टांशार्धा कपोतालि (:?) द्विसार्धं मन्तरालकम् ।
च्छाद्यं त्रयोदशांशोच्चं दशभागैर्विनिर्गमः ॥

शिखरम्—
प्रा० म०
४. १२–२३

सपादं शिखरं कार्यं सकर्णं शिखरोदयम् ।
सपादकर्णयोर्मध्ये रेखाःस्युः पञ्चविंशतिः ॥
प्रोक्ता रेखा (:?) कलाभेदैर्वलनैः पञ्चविंशतिः ।
पञ्चादिनवयुग्मान्तं खण्डानि तेष्वनुक्रमात् ॥
अंशवृद्ध्या कलाः कार्या दैर्घ्ये स्कन्धेऽपि तत्समा (:?) ।
अष्टादावसुपष्ठ्यन्तं चतुर्वृद्ध्या तु षोडशम् ।
दैर्घ्यतुल्याः कलाः स्कन्धे एकहीनास्तु षोडश ॥

ऊर्ध्वा अष्टादशांशा (:?) स्युस्तिर्यक् षोडश एव च।
चक्रेऽस्मिन् सम्भवत्येव रेखाणां षट् शतद्वयम्॥
त्रिखण्डात् खण्डवृद्धिश्च यावदष्टादशैव हि।
एकैकांशे कलाष्टौ च समाचार्यस्य षोडश॥
द्वितीयप्रथमे खण्डे कलाष्टौ द्वितये नव।
तृतीये दशखण्डेषु शेषेषूर्ध्वेष्वयं क्रमात्॥
अष्टदिक् सूर्यभागैश्च त्रिखण्डात्रि (तृ?)तीया भवेत्।
अनेन क्रमयोगेन कोष्ठानङ्कैः प्रपूरयेत्॥
रेखाणां जायते संख्या षट्पञ्चाशच्छतद्वयम्॥
दैर्घ्ये भवति यावत्यः कला (:?) स्कन्धेऽपि तत्समा।
सव्यासं शिखरं कार्यं सकर्णं शिखि(ख?)रोदयम्॥
व्यासस्य कर्णयोर्मध्ये रेखाः स्युः पञ्चविंशतिः।
विंशद्भिर्विभजेद् भागैः शिलान्तः फलाशान्तकम्॥
मण्डोवरोऽष्टसार्धाष्टनवांशै (:?) शिखरोदयम्।
रेखामूलस्य विस्तारे पद्मकोशं समालिखेत॥
चतुर्गुणेन सूत्रेण सपादः शिखरोदयः॥
स्कन्धकोशान्तरे सप्त भक्ते ग्रीवा तु भागतः।
सार्धमामलसारञ्च पद्मपत्रन्तु सार्धकम्॥

कलशः
प्रा० म०
४. २४-२८

त्रिभाग उच्चकलशो द्विभागं तस्य विस्तरम (?)।
प्रासादस्याष्टमांशेन पृथुत्वं कलशान्तकम्॥
च्छाद्यंतः स्कन्धपर्यन्तं एकविंशतिभाजिते।
अङ्क-दिक्-रुद्र-सूर्यांशै र्विश्वांशैस्तस्य चोच्छ्रयः॥
शुकनासस्य संस्थानं च्छाद्योर्ध्वे पञ्चधा मतम्।
एक-त्रि-पञ्च-सप्ताङ्कसिंहस्थानानि कल्पयेत्॥
द्वारस्य दक्षिणे वामे कपिलि(:?) षड्विधा मता।
तदूर्ध्वे शुकनासा स्यात् सैव प्रासादनासिका॥
प्रासादो दशभागश्च द्वित्रिवेदांशसम्मिताः।
प्रासादेनार्धपादेन त्रिभागेनाथ निर्मिता॥
शृङ्गोरूशृङ्गप्रत्यङ्गैः खण्डकात् गणयेत् सुधीः।
तवङ्गं तिलकं कर्णं कुर्यात् प्रासादभूषणम्॥
दशांशे शिखरे मूले अग्र (?) तल नवांशकैः।
सार्धांशकौ रथौ कोणौ द्वौ शेषं भद्रमिष्यते॥
रथयोरुभयोर्मध्ये वृत्तमामलसारकम्।
उत्सेधो विस्तरार्धेन चतुर्भागैर्विभाजयेत्॥
ग्रीवा चामलसारश्च पादोनञ्च सपादकम्।

स० सू०	अलिन्दे मण्डपे वापि चतुष्के वलभीषु वा।
५४. २७-३१	वितानानि विचित्राणि समुत्क्षिप्ततलानि च ॥
	लक्षणेन च युक्तानि विदधीत यथोचितम्।
	लुमाः फलकवर्तीभिः कृताः समभिदध्महे ॥
	उत्क्षिप्तानां च ये भेदा जायन्ते सर्ववास्तुषु।
	तुम्बिनी लम्बिनी हेला शान्ता कोला मनोरमा ॥
	आध्माता चेति सप्तैता नामतः कथिता लुमाः ॥
वितानानि	एताभिः कारयेत् कोलं वितानं नयनोत्सवम्।
स० सू०	कोलाविलं हस्तितालु चाष्टपत्रं शरावकम् ॥
५४. ४३-४१	नागवीथीवितानं च पुष्पकं भ्रमरावली ॥
	हंसपक्षं करालं च किङ्कटं शंखकुट्टिमम्।
	शंखनाभिः सपुष्पं च शुक्ति (वृ?वृं) त्तकमेव च ॥
	मन्दारं कुमुदं पद्मं विकासं गरुडप्रभम्।
	पुराहूतं पुरारोहं विद्युन्मन्दारकं तथा ॥
	एतान्येवं वितानानि सङ्ख्यया पञ्चविंशतिः ॥
छाद्योदयाः	आतपत्रोऽथ कौवेरः शमनाख्यस्तथावली।
५४. ७४-५	हंसपृष्ठो महाभोगी नारदः शम्बुकस्तथा ॥
	वामनः प्रथमस्तेषामावन्त्येन दशेत्यमी ॥
वृत्ताश्च	कुबेरशेखरीचन्द्री नागश्चाथ गणाधिपः ।
५४. ७७	मुख्यश्छाद्यः सुभद्रश्च वृत्ते सप्तोदयाः स्मृताः ॥
सिंहकर्णम्	इदानीमभिधास्यामः सिंहकर्णस्य लक्षणम् ॥
स० सू०	त्रिवलीवलितो नाम सिंहकर्णोऽयमीरितः ॥
	चतुर्दशांशविस्तीर्णौ कर्णौ सार्धे वलिर्भवेत् ॥
	चैत्र एकवलिर्नाम सिंहकर्णस्तथाऽपरः ॥
पत्रजातयः	कूटाकारैर्विचित्रैश्च शोभनै रूपकर्मभिः ॥
५५. १५७-६०	पत्रजातैरनेकैश्च कण्ठं कुर्याद् यथेप्सितम्।
	पाचकः कटुतीक्ष्णाद्यैरनुसाररसैर्यथा ॥
	अन्वीक्ष्यः विपचेत् तद्वत् स्थपतिः सर्वमाचरेत्।
	यदुक्तं यदनुक्तं च तत् समग्रमपि स्फुटम् ॥
	(युक्त्या) युक्त समालोच्य यथाशोभं समाचरेत् ॥
स्तम्भचित्राणि	स्तम्भैर्विविधविन्यासैर्बहुभङ्गविनिर्मितैः ॥
५७. ४२६-३६	भूषितैः कर्मभिश्चित्रैः सर्वत्र शुभलक्षणैः।
	चन्द्रशालादिसंयुक्तैस्तोरणैश्चारुचामरैः ॥
	तथा चतमुखग्रासैर्वनरूपतया स्थितैः।
	व्यालैर्व्यालोलजिह्वैश्च मकरग्राससंयुतैः ॥

मदान्धालिकुलाकीर्णगजवक्त्रविभूषितैः ।
विद्याधरवधूवृन्दैः क्रीडारम्भविभूषितैः ॥
सुराणां सुन्दरीभिश्च वीणाहस्तैश्च किन्नरैः ।
सिद्धगन्धर्वयक्षाणां वृन्दैश्च परितः स्थितैः ॥
अप्सरोभिश्च दिव्याभिर्विमानावलिभिस्तथा ।
चारुचामीकरान्दोलाक्रीडासक्तैश्च (निःसराम्?) ॥
नागकन्याकदम्बैश्च सर्वतः समलङ्कृतम् ।
एवंविधाभिः सर्वत्र भूमिकाभिर्निरन्तरम् ॥
अलङ्कृतो विधातव्यो मेरुः प्रासादनायकः ॥

प्रासाद-संस्तवनायाम्—

स० सू० ५८. १-१७

प्रासादानां चतुःषष्टिरिदानीमभिधीयते ।
या पूर्वं ब्रह्मणा दत्ता (प्र?प्रा) सादा विश्वकर्मणे ॥
मर्मवेधस्थिता वास्तुदेवाः पूज्या यथोचितम् ।
पूज्यता च स्मृतां तेषां प्रासादे मण्डपे ध्वजे ॥
आसने वाहने तद्वत् सर्वोपकरणेष्वपि ।
प्रासादे यादृश (श्छन्दस्तादृङ्मन्दपीठयोः?) ॥
तथा वास्तुविरुद्धं स्यात् प्रासादाङ्गे हिते (?) विदुः ।
अष्टावष्टौ स्मृतास्तेषु त्रिदशानां पृथक् पृथक् ॥
शम्भो (र्हरे) र्विरिञ्चस्य ब्रह्मणाम (धिपस्य च) ।
चण्डिकाया गणेशस्य श्रियाः सर्वदिवौकसाम् ॥
विमानः सर्वतोभद्रो गजपृष्ठोऽथ भ्रमकः ।
वृषभो मुक्तकोणश्च नलिनो द्राविडस्तथा ॥
इत्येतेऽष्टौ समुद्दिष्टाः प्रासादास्त्रिपुरद्रुहः ।
गरुडो वर्धमानश्च शंखावर्तोऽथ पुष्पकः ॥
गृह (र?राट्) स्वस्तिकश्चैव रुचकः पुण्ड्रवर्धनः
कार्या जनार्दनस्याष्टौ प्रासादाः पुरभूषणाः
मेरुमन्दरकैलासा हंसाख्यो भद्र एव च ।
उत्तुङ्गो मिश्रकश्चैव तथा मालाधरोऽष्टमः
इत्यष्टौ ब्रह्मणः प्रोक्ताः प्रासादाः पुरमध्यगाः
गवयश्चित्रकूटश्च किरणः सर्वसुन्दरः
श्रीवत्सः पद्मनाभश्च वैराजो वृत्त एव च ।
एते कार्या रवेरष्टौ प्रासादाः शुभलक्षणाः ॥
(नन्यावर्तश्चैव चलभश्चर्णादिख्यः?) सिंह एव च ।
विचित्रो योगपीठश्च घण्टानादपताकिनौ ॥

अष्टावेते विधातव्याश्चण्डिकायाः सुरालयाः ।
(गुहारसलोकश्च ?) वेणुभद्रोऽथ कुञ्जरः ॥
तथाच हर्षविजयावुदकुम्भऽथ मोदकः ।
एतान् विनायकस्याष्टौ प्रासादान् कारयेच्छुभान् ॥
महापद्म (हर्म्यननल) सुज्जयन्तस्तथा परः ।
गन्दमादनसं (ज्ञं?ज्ञश्च) शतश्रृंगा (नवष्ककौ?नवद्यकौ) ॥
सु (म?) विभ्रान्तो (मनो) हारीत्यष्टौ लक्ष्म्याः प्रकीर्तिताः ।
वृतौ वृत्तायतश्चैत्यः किंकिणी लयनाभिधः ॥
पट्टिशो विभवाख्यश्च तत (श्चा?स्ता) राग(णा?णो) च्छमः ।
कुर्वीत सर्वदेवानां प्रासादान् वास्तुशास्त्रवित् ॥

कर्तृकारक-व्यवस्थायाम्—

मेरोः यथा
स० सू०
४६. ३६-४३

मेरोः प्रासादराजस्य देवानामालयस्य च ।
कर्ता क्षत्रिय एवास्य वै(श्य?श्यो)स्य स्थपतिर्भवेत् ॥
एवं विधीयमानेऽस्मिन् मेरौ द्वावपि नन्दतः ।
वास्तुशास्त्रविधिज्ञोऽपि क्षत्रियः स्थपतिर्यदि ॥
तदास्य सत्यं शौचं च विक्रमश्च विनश्यति ।
ईश्वरोऽपि यदा विप्रो मेरुप्रासादकृद् भवेत् ॥
कर्तुः कारयितुः पीडा पूजा चास्य न तादृशी ।
ब्राह्मणः स्थपतिश्चास्य वास्तुशास्त्रे विशारदः ॥
वणिक्कर्मणि वर्तेत धनवानपि यद्यसौ ।
सर्वविप्रेषु निर्दिष्टः कर्ता स्थपतिरेव सः ॥
तत्रस्था देवताः सर्वास्तस्य वृद्धिः कथञ्चन ।
वास्तुशास्त्रविधिज्ञोऽपि तत्तत् कारयिता यदि ॥
राजापि क्षत्रियः कर्ता यदा मे(रु?रो)र्भवेत् तदा ।
राष्ट्रभङ्गो भवेत् तस्य प्रजा यान्ति दिशो दश ॥
क्षत्रियेण नरेन्द्रेण कर्त्ता स्थपतिना यदि (?) ।
मेरोः पूजा भवेत् तत्र क्षत्रियोप्यक्षयं पदम् ॥

प्रासाद-रचना-शैलीषु—

नागरादयः
मान०
१८. ४९-५१

मूलादिस्तूपिपर्यन्तं वेदाश्रं चायताश्रकम् ॥
द्व्यश्रं वृत्ताकृति वाथ ग्रीवादिशिखराकृतिः ।
स्तूपिकात्रयसंयुक्तं द्वयं वा चैकमेव वा ॥
चतुरश्राकृति यत्तु नागरं तत्प्रकीर्तितम् ।
मूलाग्रं वृत्तमाकारं तद्वृत्तायतमेव वा ॥

ग्रीवादिस्तूपिपर्यन्तं युक्त्याथ तद्युगाश्रकम् ।
वृत्तस्याग्रे द्व्यश्रकं तद्वेसरनामकं भवेत् ॥
मूलाग्रात्स्तूपिपर्यन्तं चाष्टाश्रकं वा षडश्रकम् ।
तदग्रं चायतं वापि ग्रीवस्याधो युगाश्रकम् ॥
पूर्ववच्चोर्ध्वदेशं स्याद् द्राविडं परिकीर्तितम् ।
समाश्रकशिखायुक्तं चायामे तच्छिखात्रयम् ॥
द्व्यश्रवृत्तोपरि स्तूपि वृत्तं वा चतुरश्रकम् ।
पद्मादिकुड्मलान्तं स्याद्युक्तवद्वाकृतिं न्यसेत् ॥

५३. ४३–४४
नागरं चतुरश्रम् अष्टाश्रं द्राविडन्तथा ।
वृत्तञ्च वेसरं प्रोक्तम् ... ... ॥

शि०
मूलादाशिखरं युगाश्ररचितं गेहं स्मृतं नागरम्

१६. ४१–४२
मूलादिशिखरक्रियं षडुरगाश्रोन्नेदितं द्राविडम् ।
मूलाद् वा गलतोऽथवा परिलसद्वृत्तात्मकं वेसरः
तेष्वेकं पृथगात्तलक्ष्म सुविदध्यादात्मनः सम्मतम् ॥
जन्मादिस्तूपिपर्यन्तं युगाश्रं नागरं भवेत् ।
वस्वश्रं शीर्षकं कर्णं द्राविडं भवनं विदुः ॥
वृत्तकर्णशिरोपेतं वेसरं हर्म्यमीरितम् ।
कूटकोष्ठादिहीनानां हर्म्याणां कथितं त्विदम् ॥

कामिका०
प्रत्येकं त्रिविधं प्रोक्तं सञ्चितं चाप्यसञ्चितम् ।

६५. ६–७; १२–१८
उपसञ्चितमित्येवं नागरं द्राविडं तथा ॥
वेसरं च तथा जातिश्छन्दो वैकल्पमेव च ।
स्वविस्तारवशाच्छन्नहस्तपूर्णायतान्वितम् ॥
युग्मायुग्मविभागेन नागरं स्यात् समीकृतम् ।
अन्तरप्रस्तरोपेतमूहप्रत्यूहसंयुतम् ॥
निम्नसन्धारसंस्तम्भग्राते परिद्देशशुभैः ।
द्राविडं वक्ष्यतेऽथातः विस्तारद्वयोरर्वकन् ?
रक्ताछन्नप्रतीचेपाव् युग्मायुग्मविशेषतः ।
हित्वा तत्र समीभूतं भद्रालङ्कारसंयुतम् ॥
अनेकद्वारसंयुक्तं षड्वर्गं द्राविडं स्मृतम् ।
लब्धव्यासायतं यत्तु नातिरिक्तं न हीनकम् ॥
बहुवर्गयुतं वापि दण्डिकावारशोभितम् ।
महावारं विमानोर्ध्वे निर्व्यूहाननसंयुतम् ॥
सनेत्रोपेतमध्याङ्घ्रियुक्तं तद् वेसरं मतम् ।
यतीनां गणिकानाञ्च जीविनां क्रूरकर्मणः ॥
प्रशस्तं वेसरं तेषामन्येषामिते शुभे ॥

सुप्रभेदा० ३१. ३७—३९

द्वारभेदमिदं प्रोक्तं जातिभेदं तथा शृणु ।
नागरं द्राविडं चैव वेसरं च त्रिधा मतम् ॥
कण्ठादारभ्य वृत्तं यद् वेसरमिति स्मृतम् ।
ग्रीवामारभ्य चाष्टांशं विमानं द्राविडाख्यकम् ॥
सर्वं वै चतुरश्रं यद् प्रासादं नागरं त्विदम् ।

प्रासादस्य विभिन्नाः वर्गाः

मेर्वादिविंशिकानागरप्रासाद-लक्षणम् (२० नागर-प्रासादाः)

स० सू० ६३. १–३॥

अधुना नागरान् ब्रूमः प्रासादान् नामलक्षणैः ।
मेरुमन्दरकैलासाः कुम्भोऽथ मृगराड् गजः ॥
विमानच्छन्दसंज्ञश्च चतुरश्रस्तथापरः ।
अष्टाश्रिः षोडशाश्रिश्च वर्तुलः सर्व(तोद?भद्र)कः ॥
सिंहास्यो नन्दनो नन्दिवर्ध (मा?) नो हंसको वृषः ।
(गुरुत्मा?गरुडः) पद्माख्यश्च समुद्र इति विंशतिः ॥
नागराणिमिति प्रोक्ता प्रासादानां समासतः ।

एषु भूमिकाण्डकादिकल्पनम् ६३. ४–२१

शत (मुद्र?) श्चतुर्द्वारः षोडशक्षितिरूर्ध्व (तः) ॥
विचित्रशिखराकीर्णो मेरुः प्रासाद उच्यते ।
मन्दरो द्वादशतलः कैलासो नवभूमिकः ॥
अनेकशिखरश्चित्रश्चतुर्द्वारो महोच्छ्रितिः ।
विमानच्छन्दकस्त्वष्टभूमिकः परिकीर्तितः ॥
विंशत्यण्डकसंयुक्तः सप्तभूर्नन्दिवर्धनः ।
षड्भूमिर्नन्दनः कार्यः प्रासादः षोडशाण्डकः ॥
पञ्चभूः सर्वतोभद्रो भद्रशालाविभूषितः ।
अनेकशिखराकीर्णः कर्तव्यः प्रचुराण्डकः ॥
वलभिच्छन्दकः कार्यो देवतानां (ए?) वृषः सदा ।
वृषस्तु स्वोच्छ्रितेस्ततुल्यः सर्वतः स्वस्ति वर्तितः ॥
मण्डलं(?) स तु विज्ञेय एकाण्डकविभूषितः ।
सिंहः सिंहाकृतिर्ज्ञेयो गजो गजसमाकृतिः ॥
कुम्भः कुम्भाकृतिस्तद्वद् भूमिकानवकोच्छ्रितः ।
अञ्जलीपुटसंस्थानः पञ्चाण्डकविभूषितः ॥
षोडशाश्रिः समन्ताच्च विज्ञेयः स समुद्रकः ।
पार्श्वयोश्चन्द्रशाला च उच्छ्रायात् स द्विभूमिकः ॥
तथाष्टाश्रिः पद्मनिभो भूमिकात्रयमुच्छ्रितः ।
षोडशाश्रिः स विज्ञेयो विचित्रशिखरः शुभः ॥
मृगराजस्तु विख्यातश्चन्द्रशालाविभूषितः ।

प्राग्ग्रीवेण विशालेन भूमिका(स यद्ध?सु य उ)च्छ्रितः ॥
अनेकचन्द्रशालस्तु गजः प्रासाद उच्यते ।
पर्यस्तो मृगरास्तु गरुडो नाम नामतः ॥
सप्तभूम्युच्छ्रितस्तद्वच्चन्द्रशालात्रयान्वितः ।
अश्रिभि(र्विहरं तस्य?) षड्भिर्युक्तः समन्ततः ॥
स्यादन्यो गरुडस्तद्वदुच्छ्राये दशभूमिकः ।
पद्मकः षोडशाश्रिः स्याद् भूमिकाद्वितयाधिकः ॥
पद्मतुल्यप्रमाणन(?)त्रावृक्षश्चतुरश्रकः ।
पन्चाण्ड(मे?ए)कभूमिस्तु ग(र्भ?र्भो)हस्तचतुष्टयम् ॥
वृषो भवति ना(त्रायं?)प्रासादः सर्वकामिकः ।
सप्तकापन्चकाभूमिप्रासादो(?) य इहोदिताः ॥
(हिंस्य?) ते समा ज्ञेया ये चान्ये तत्प्रमाणकाः ।
विचित्रशिखराः कार्याश्चन्द्रशालाविभूषिताः ॥
सर्वे प्राग्ग्रीवसंयुक्ताः कर्तव्यास्तोरणान्विताः ।
ऐष्टिका दारवा यद्वा शैलजा वाजनाकुलाः ॥

शिखरोत्तमाः रुचकादि-चतुष्षष्टिप्रासादाः—

तेषु २५ ललित-प्रासादाः स० सू० ५६. ६-१५

रुचको भद्रकश्चैव हंसो हंसोद्भवस्तथा ।
प्रतिहंसस्तथा नन्दो नन्द्यावर्तो धराधरः ॥
वर्धमानोऽद्रिकूटश्च श्रीवत्सोऽथ त्रिकूटकः ।
मुक्तकोणो गजश्चैव गरुडः सिंह एव च ॥
भवश्च विभवश्चैव पद्मो मालाधरस्तथा ।
वज्रकः स्वस्तिकः शङ्कुर्मलयो मकरध्वजः ॥
इत्येते नामतः प्रोक्ताः प्रासादाः पन्चविंशतिः ।
एतेषां रूपनिर्माणं कथयामो यथाविधि ॥
रुचका (द्य) द्वादशैषां चतुरश्राः प्रकीर्तिताः ।
भवश्च विभवश्चैव चतुरश्रायतौऽथवा ॥
पद्मो मालाधरश्चैव वृत्तावेतावुदाहृतौ ।
मलयो मकराख्योऽथ द्वौ तु वृत्तायताविमौ ॥
वज्रकः स्वस्तिकः शङ्कुरित्थमष्टाश्रयस्त्रयः ।
ललिताः कथिता ह्येते ब्रूमोऽन्यान् मिश्रकानथ ॥

९ मिश्रकाः ५६. १६-१७

सुभद्रो चोकिटश्च(?) सर्वतोभद्र एव च ।
सिंहकेसरिसंज्ञोऽन्यश्चित्रकूटो धराधरः ॥
तिलकाख्यः स्वतिलकस्तथा सर्वाङ्गसुन्दरः ।
नवामी मिश्रकाः प्रोक्ताः कथ्यन्ते (साधकारिकाः?) ॥

२५ सान्धार-प्रासादाः ५६. १८-२०॥	केसरी सर्वतोभद्रो नन्दनो नन्दिशालकः । नन्दीशो मन्दिराख्यश्च श्रीवृक्षश्चामृतोद्भवः ॥ हिमवान् हेमकूटश्च कैलासः पृथिवीजयः । इन्द्रनीलो महानीलो भूधरो रत्नकूटकः ॥ वैडूर्यः पद्मरागश्च वज्रको मुकुटोत्कटः । ऐरावतो राजहंसो गरुडो वृषभस्तथा ॥ मेरुः प्रासादराजश्च देवानामालयो हि सः ।
तेषु अण्डकवर्तना ५६. २३-३४	आद्यः पञ्चाण्डकः कार्यः प्रासादः केसरीति यः ॥ सर्वतोभद्रको यस्तु विधेयः स नवाण्डकः । त्रयोदशाण्डकस्तु स्याघन्दनो नाम यो भवेत् । नन्दिशलस्तु यः प्रोक्तः स स्याद् सप्तदशाण्डकः ॥ अण्डकैरेकविंशत्या नन्दीशः परिवारितः । पञ्चविंशाण्डकोपेतं मन्दरं कारयेद् बुधः ॥ श्रीवृक्षः शस्यते चैतेष्वेकोनत्रिंशताण्डकैः । स्याद् त्रयस्त्रिंशताण्डैस्तु प्रासादो ह्यमृतोद्भवः ॥ अण्डकैः क्रियते सप्तत्रिंशता हिमवानपि । सैकया हेमकूटस्तु स्याच्चत्वारिंशताण्डकैः । पञ्चचत्वारिंशताण्डैः कैलासो नाम नामतः । भवत्येकोनपञ्चाशदण्डकः पृथिवीजयः ॥ इन्द्रनीलश्च यःप्रो (कारः ?क्तः स त्रि) पञ्चाशताण्डकैः । सप्तपञ्चाशता युक्तो महानीलस्तथाण्डकैः ॥ एकषष्ट्यण्डकोपेतः प्रासादो भूधरो भवेत् । पञ्चषष्ट्यण्डकैर्युक्तो रत्नकूटः प्रशस्यते ॥ नवषष्ट्यण्डकः कार्यो वैडूर्यः शुभलक्षणः । त्रिसप्तत्यण्डकयुतः पद्मरागो विधीयते ॥ अण्डकैः सप्तसप्तत्या प्रासादो विजयाभिधः । नवाशीत्यण्डकोपेतो विधेयो मुकुटोत्कटः ॥ ऐरावतस्तु पञ्चाशीत्यण्डकः परिकीर्तितः । नवाशीत्यण्डकैर्युक्तो राजहंसः प्रशस्यते ॥ नवत्या सप्तयुतया प्रासादो वृषभोऽण्डकैः । शतेनैकोत्तरेणाण्डैर्मेरुः प्रासादराट् स्मृतः ॥
५ निगूढ-प्रासादाः ५६. २२	लतात्रिपुष्कराख्यौ च पञ्चवक्त्रश्चतुर्मुखः । नवात्मकश्च निगूढः प्रासादा पञ्च संज्ञिताः ॥

द्राविड-प्रासाद-लक्षणम्

१२ द्राविड-प्रासादाः ६१. १	इदानीं द्राविडान् ब्रूमः प्रासादा शुभलक्षणान् । एकभूम्यादयस्ते स्युर्यावद्द्वादशभूमिकाः ॥

तेषां पीठपञ्चकलक्षणम् पीठमाद्यं भवेद् तेषु पादबन्धनमुत्तमम्।
६१. ३-४३॥ (श्री ? श्रो) बन्धरुयं द्वितीयं च तृतीयं वेदिबन्धनम् ॥
प्रतिक्रमसिति प्रोक्तं चतुर्थं पीठमुत्तमम्।
पञ्चमं पीठमुद्दिष्टं नाम्ना क्षुरकबन्धनम् ॥
एतानि पञ्च पीठानि प्रोक्तानीह समासतः।

पञ्चतलच्छन्दाश्च प्रासादानथ वक्ष्यामस्तलच्छन्दादनन्तरम्।
६१. ३२-३३॥ तत्र पद्मो महापद्मो वर्धमानस्तथापरः ॥
स्वस्तिकः सर्वतोभद्रः प्रासादाः प कीर्तिताः।

टि० द्राविड–प्रासाद–सन्निवेशे एकादिद्वादशभूमिकान्यास एव मुख्यं वास्तु। तदधिकृत्य सम-राङ्गणे एकभूमिक-द्विभूमिक-त्रिभूमिकादि-द्वादशभूमिकान्तानां द्राविड-प्रासादानां लक्षण तत्र द्विषष्टितमे ऽध्याये प्रदत्तमस्ति तन्नात्र विस्तार्यते।

वावाट–प्रासाद–लक्षणम्

स० सू०
६४. १–१२

प्रासादमथ (वावाटं?) वक्ष्यामो नामलक्षणैः।
लक्षणै (?) स्तेषु दिग्भद्र श्रीवत्सो वर्धमानकः ॥
नन्द्यावर्तश्चतुर्थः स्यात् पञ्चमो नन्दिवर्धनः।
विमानश्च तथा पद्मो महाभद्राख्य एव च ॥
श्रीवर्धमानकाख्यश्च महा (प द्म तोपि वा?)।
एकादशः पञ्चशालो द्वादशः पृथिवीजयः ॥
तत्र प्रागेव (दिग्भद्रः प्रावर्णं?) प्रतिपाद्यते।
चतुरश्रीकृते क्षेत्रे नवभागविभाजिते ॥
कोणौ द्विभागविस्तारौः प्रत्यङ्गौ भागिकौ स्मृतौ।
शाला भागत्रया कार्या नासिकात्रयशोभिता ॥
परस्परं विनिष्कासमर्धभागेन कारयेत्।
कोणप्रत्यंगयोरन्तः शालाप्रत्यंगयोस्तथा ॥
षोडशांशेन कुर्वीत + + + सलिलान्तरम्।
सीमा (स्याद्?स्य) दशभिर्भागैः प्रविभज्य विधीयते ॥
+ + का गर्भपादैः षड् भित्तयः स्युर्द्विभागिकाः।
(वर्धमानेनमथ,ब्रूमो?) विस्ताराद् द्विगुणं हि तद् ॥
द्वौ भागौ वेदिकाबन्धो जङ्घा ज्ञेया चतुष्पदा।
(शान्तापत्रा?) कपोताली सार्धभागं समुच्छ्रिता ॥
सार्धभागसमुच्छ्राया कार्या प्रथमभूमिका।
द्वितीया भूमिका ज्ञेया सार्धभागत्रयोदया ॥
तृतीया च विधेया स्यात् सार्धं भागद्वयोच्छ्रिता।

उच्छ्रालकं च जङ्घां च भूमिकार्धं विधीयते ॥
कूटं (तै?) चार्धतो देयं कर्मशोभासमन्वितम् ।
घण्टा भागत्रयोत्सेधा बहुभिश्चाग्निभिर्युता ॥

भूमिज–प्रासाद–लक्षणम्

प्रास्ताविकम्
स० सू०
६५. १–२

भूमिजानां विमानानां ब्रूमो लक्ष्म क्रमागतम् ।
चतुरश्रीकृतानां च वृत्तानां (वृत पूर्वशः?) ॥
केषाञ्चिन्निर्गमस्तत्र जायते भागसंख्यया ।
केषाञ्चिद् पुनरेष स्याद् वृत्तमध्यमधिष्ठितः ॥
चतुरश्रीकृते क्षेत्रे दशभागविभाजिते ।
चतुर्भूमियुतस्याथ लक्ष्म (त्संशस्य?च्छन्दस्य)कथ्यते ॥

तेषु निषधादयः
४ चतुरश्राः
६५. ४

चत्वारश्चतुरश्राः स्युर्निषधो मलयाचलः ।
माल्यवान् नवमाली च निषधस्तेषु कथ्यते ॥

कुमुदादयः ७
वृत्तजातयः
६५. ५६–६३

इदानीमभिधीयन्ते प्रासादा वृत्तजातयः ॥
वल्लभाः सर्वदेवानां भूमिजाः पुरभूषणम् ।
आश्रयः श्रेयसामोको यशसामपि राशयः ॥
भुक्तिमुक्तिप्रदातारः (समागते कृता?) नृणाम ।
तत्राद्यः कुमुदो नाम कमलः कमलोद्भवः ॥
(कि)रणः शतशृङ्गश्च निरवद्यस्तथापरः ।
सर्वाङ्गसुन्दरश्चेति प्रासादा वृ(त्त?त्त) जातयः ॥
नविस्तरान्नसंक्षेपाल्लक्ष्मैषामथ कीर्त्यते ।
तत्राद्यः कुमुदो नाम सर्वानन्दकृदुच्यते ॥

५ स्वस्तिकादयाः
५ अष्टशालाः
६५. १४०–१४१॥

अथाष्टशालान् वक्ष्यामो + + + भूमिजातिषु ॥
तेष्वाद्यः स्वस्तिकोऽन्यश्च वज्रस्वस्तिकसंज्ञितः ।
तृतीयो हर्म्यतलकश्चतुर्थं उदयाचलः ॥
गन्धमादनसंज्ञश्च पञ्चमः परिकीर्तितः ।

प्रासाद-मण्डप-लक्षणम्

प्रासादे मण्डपा-
वश्यकता
७४. १–४

निर्माणं मण्डपानान्तु बहुरूपं स्थलार्हकम् ।
कारयेन्मानविच्छिल्पी देवागारे विशेषतः ॥
अभिषेकाय देवानामलङ्काराय च क्वचित् ।
जननार्थं क्वचिद्देव्या विवाहाय क्वचिन्मतम् ॥
भट्टारकनृपानुज्ञाचोदितो मानभेदवित् ।
देवानामपि देवीनां नित्यनैमित्तिकोत्सवाः ॥

यथा सुलभसाध्यास्स्युस्तथा मण्डपकल्पनम् ।
कारयेन्मतिमान्युक्त्या सर्वं तत्स्थलयोग्यकम् ॥

तेषां स्तम्भाः
७४, ९–८

चतुःपादयुतं वापि क्वचिदष्टपदान्वितम् ।
दशपादयुतं वापि द्वादशांघ्रिसमन्वितम् ॥
षोडशस्तम्भयुक्तं वा स्तम्भविंशतिसंयुतम् ।
चतुर्विन्शतिपादाढ्यमष्टाविंशतिपादकम् ॥
द्वात्रिंशत्स्तम्भयुक्तं वा चत्वारिंशत्पदं तथा ।
पञ्चाशत्स्तम्भसंयुक्तं द्विपञ्चाशत्पदं क्वचित् ॥
चतुष्षष्टिपदोपेतमशीतिस्तम्भभासुरम् ।
शतस्तम्भयुतं वापि मण्डपं बहुरूपकम् ॥

तेषां प्रयोजनम्
७४, ६–१८

स्तम्भस्थापनकार्यार्हपूर्वाङ्गणसमन्वितम् ।
शिलाभिरेव देवानां यतीनाञ्च सत्क्रिया ॥
लौहैर्द्रव्यान्तरैर्भूपमण्डपं स्थापयेत्क्रमात् ।
जपमण्डपकं वाऽपि वेदाध्ययनमण्डपम् ॥
अधिष्ठानयुतं प्रायश्चिरकालाय कल्पते ।
सोपपीठस्तम्भपालि चित्रालङ्करणान्वितम् ॥
मुखाङ्गणसमोपेतं पार्श्वाङ्गणसमन्वितम् ।
चतुरङ्गणयुक्तं वा सवारं वा विवारकम् ॥
समरेखादृष्टिहीनं समोत्तुङ्गविशालकम् ।
वाजिवक्त्रेण संयुक्तं गजवक्त्रान्वितं क्वचित् ॥
यालीमुखसमोपेतं पार्श्वचक्रसमन्वितम् ।
सोपानसंयुतं वापि कल्पयेत्सुमनोहरम् ॥
मुखप्रस्तरयुक्तं वा ऊर्ध्वप्रस्तरणान्वितम् ।
वलभीकल्पनं चोर्ध्वे त्वरणञ्च यथाक्रमम् ।
एकद्रव्यसमायुक्तं विमानशिखरोज्ज्वलम् ।
भित्तिकोष्ठसमायुक्तं कर्णनासादिमण्डितम् ॥
युक्त्या कल्पान्तरयुतं स्थापयेन्मण्डपं दृढम् ।
शङ्करस्य हरेश्चापि धातुर्देवीगणस्य च ।
क्वचिन्मण्डपकल्पस्तु शतस्तम्भसमन्वितः ॥
स्थाप्यः पञ्चविधो युक्त्या पूर्वाङ्गणयुतोऽपि वा ॥

पञ्चविधाः
शतस्तम्भ-मण्डपाः
१. सूर्यकान्तः
७४, १६–२१॥

आद्यस्तु सूर्यकान्तस्यात्सूर्यसंख्यापदावलिः ।
रेखाद्वयं पूर्वभागे तथा पश्चिमभागिके ॥
तन्मध्ये षोडशपदं सव्ये सव्येतरेऽपि च ।
तन्मध्यस्थानभागे च षोडशस्तम्भकल्पनम् ॥
वदन्वस्तु चतुष्पादस्थानं तद्दैवतं सतम् ।

सर्वत्र देवभागस्तु तुङ्गो वाऽधिष्ठितोऽपि वा ॥
अयुग्मपङ्क्तिसंयुक्तो नानाचित्रमनोहरः ।

२. चन्द्रकान्तः
७४, २२–२३

द्वितीयश्चचन्द्रकान्तस्स्यात्सव्यसव्येतरात्मकम् ॥
भागं विभज्य वेदेन षण्णवत्यंघ्रिकल्पनम् ।
मध्ये वेदपदस्थानं तद्दैवतमुदीरितम् ॥

३. इन्द्रकान्तः
७४, २४–२५॥

तृतीयश्चेन्द्रकान्तस्स्यात्पार्श्वयोष्षट्प्रमाणकम् ।
स्तम्भकल्पनमत्रोक्तं वसुपङ्क्तीः प्रकल्पयेत् ॥
मध्ये वेदपदस्थानं तद्दैवतमुदीरतम् ।

४. गन्धर्वकान्तः
७४, २५–२७

चतुर्थो गन्धर्वकान्तश्चतुष्कोणो चतुःक्रमम् ॥
स्तम्भषोडशकं स्थाप्यं तदन्तश्च यथामतम् ।
पूर्वपृष्टपदोपेतनागपादप्रकल्पनम् ॥
तत्संख्याकं तदन्तश्च चतुःपङ्क्तिक्रमात्पदम् ।
तदन्तर्वेदपादन्तु दैवस्थानमुदाहृतम् ॥

५. ब्रह्मकान्तः
७४, २८–३०

पञ्चमो ब्रह्मकान्तस्स्यान्मुखपादेऽष्टपादकम् ।
पृष्ठे च तत्क्रमात्स्तम्भस्थापनं चात्र गण्यते ॥
तदङ्गणस्थानमाहुश्शिल्पशास्त्रविशारदाः ।
ततष्षट्स्तम्भविन्यासद्वयं स्थाप्यन्तु पार्श्वयोः ॥
पृष्ठे चैवं स्थापनीयं मध्ये द्वात्रिंशदङ्घ्रिकम् ।
तन्मध्ये वेदपान्तु तद्दैवतमुदाहृतम् ॥

तत्राऽपि विशेषः
७४, ३१–३३

अन्त्यकल्पनमेतत्तु विषमस्थानकं मतम् ।
आद्यं समं कल्पमाहुश्शास्त्रज्ञा वेदपारगाः ॥
समरेखां दृष्टिहीनं मनोहारिप्रकल्पनम् ।
स्तम्भानां मुखभागेषु पूर्वोत्तरपदस्थली ॥
यथाविभवतः स्थाप्या नानालङ्कारमण्डिताः ।
स्थापनीया विशेषेण देवानां प्रीतिदायिनी ॥

प्रासाद-मण्डपानां द्वौ वर्गौ

स० सू० ६६. २

संवृतो वा भवेदेष व्यतिरिक्तोऽथवा क्वचित् ॥

तेषां भूषण-क्रिया
६७, १०६, ८

शोभां भद्रेषु कर्णेषु यथायोगं प्रकल्पयेत् ।
वीथीभिश्चन्द्रशालाभिः सिंहकर्णैश्च शोभनैः ॥
रथिकाभिर्वरालैश्च तिलकैश्चारुदर्शनैः ।
घ्टकनासैर्गजैः सिंहैरन्यैरित्येवमादिभिः ।
कर्मप्रकारैः कर्तव्या मण्डपे भूषणक्रिया ॥

गानसाराद्

देवालयेषु सर्वेषु संमुखे बहुमण्डपम् ।
पुण्यक्षेत्रे तथारामे ग्रामादौ वास्तु-मध्यमे ॥

चतुर्दिक्षु विदिक्षु वापि बाह्याभ्यन्तरतोऽथवा ।
नाराणां गृहमध्ये च संमुखे मण्डपं तु वा ॥
सर्वेषां वास-योग्यार्थं (ग्यं च) मण्डपं यागमण्डपम् ।
नृपाणामभिषेकार्थं मण्डपं नृत्तमण्डपम् ॥
पाणिपीडन-सिद्ध्यर्थं तथा तत्रं च मण्डपम् ।
उपनयनमण्डपं चैव तथा च स्नपनमण्डपम् ॥
अर्भकानां सुखालोकं (क) मण्डपं सतीमण्डपम् ।
चौरार्थं मण्डपं चैव चाग्निकार्यार्थमण्डपम् ॥
सुखान्वितार्थं कल्पेत मण्डपं विधिवत्क्रमात् ।
मण्डपानां च सर्वेषां स्थानमुक्तं पुरातनैः ॥
प्रासादाभिमुखे सप्तमण्डपं कल्पयेत्क्रमात् ।
आदौ [च] स्नपनार्थं च द्वितीया (यम) ध्ययनमण्डपम् ॥
विशेषं स्नपनार्थं च मण्डपं च तृतीयकम् ।
चतुर्थं प्रतिमागारं पञ्चमं स्थापन-मण्डपम् ॥
षष्ठं चापि ततः कुर्यात्तीर्थमण्डपम् ।
सप्तमं नृत्तगीतार्थमागारं तत्साधकार्थकम् ॥
अथवा तन्मुखे कुर्यादेकद्वित्रि च मण्डपम् ।
स्नपनं प्रतिमाङ्गानां गीतनृत्तार्थमण्डपम् ॥
मण्डपं द्वितीयं चैतत अ(द) प्रमण्डप (पं) तन्मुखे (च) ।
आदौ चाध्ययनार्थं स्यात्प्रतिमा-मण्डपं तथा ।
तत्रैव मण्डपं कुर्यात्प्रतिमामण्डपं बुधः ।

प्रासाद-जगती लक्षणम्

जगती-माहात्म्यम् त्रिदशागारभूत्यर्थं भूषाहेतोः पुरस्य तु ।
स० सू० ६८. १–४ भुक्तये मुक्तये पुंसां सर्वकालं च शान्तये ॥
निवासहेतोर्देवानां चतुर्वर्गस्य (हे ?) सिद्धये ।
मनस्विनां च कीर्त्यायुर्यशस्सम्प्राप्तये नृणाम् ॥
जगतीनामथ ब्रूमो लक्षणं विस्तरादिह ।
प्रासादं लिङ्गमित्याहु (लिङ्ग ?)ल्लयनाद् यतः ॥
ततस्तदाधारतया जगती पीठिका मता ।
आकाराः चतुरश्रा समा शस्ता मनोज्ञा सर्वतःप्लवा
६८. १०–१२ अंशप्रगूढदिग्भागा प्रासादानुगता शुभा ॥
निरूप्य त्रिदशागारं संस्थानोन्मानलक्षणैः ।
तदाकारतीं पार्श्वे जगतीं तस्य योजयेत् ॥
प्रासाद-शोभा जग० कुर्यात् पीठेषु शोभार्थं प्रासादानां विचक्षणः ।
६८. ४८ यथा सिंहासनं राज्ञां शोभते मणिदीप्तिभिः ॥

तथा प्रासादराजस्य पीठं कर्मभिरुत्तमैः।
२६ जगत्यः वसुधा वसुधारा (च) वहन्ती च तथाप (रे?रा)।
६८-१-८ श्रीधरा भद्रिका चैव एकभद्रा द्विभद्रिका॥
त्रिभद्रिका भद्रमाला वैमानी अमरावली।
स्वस्तिका हरमाला च कुलशीला महीधरी॥
मन्दारमालिकानङ्गलेखाथोत्सवमालिका।
नागारामा मारभव्या तथाच मकरध्वजा॥
नन्द्यावर्ता (र्त?) च भूपाला पारिजातकमञ्जरी।
चूडामणिप्रभा चैव तथा श्रवणमञ्जरी॥
विश्वरूपादिकमला तथा त्रैलोक्यसुन्दरी।
गन्धर्वालिका चान्या विद्याधरकुमारिका॥
सुभद्रा च समाख्याता तथान्या सिंहपञ्जरी।
(वज्रपकुरवाद्याः?) गन्धर्वनगरी तथा॥
तथामरावती ज्ञेया रत्नधूमा च नामतः।
त्रिदशेन्द्रसभा चैव तथान्या देवयन्त्रिका॥
चत्वारिंश (द्वि?दि) तीयं स्यादेकोना नाम सङ्ख्यया।
(यमलाम्बुरधरा नेत्रा दोदण्डाः खण्डला सिता?)॥

प्रासाद-निवेशः-तथाहि-विश्वकर्म-वास्तु-शास्त्रे देव-प्रासाद-लक्षणम्

वि० वा० तैतलायतनं प्रायश्शुभदं सर्वदिङ्मुखम्।
७२. १-२ वैष्णवं सर्वतोवक्त्रं शैवं गेहं तु दक्षिणम्॥
वैधात्रमन्यदेवानां गेहं सर्वमुखं शुभम्।
महीधरादिस्थानेषु न पृष्ठस्थापनं शुभम्॥
तत्र गोपुर-प्राकारादि- वास्तुमानवशात्सर्वं स्थापयेद्दीक्षितो नृपः।
सन्निवेशः गोपुरद्वारसंयुक्तं प्राकारावृतवास्तुकम्॥
७२. ३-४ वहिरन्वस्तु वा स्थाप्यस्तटाकस्सांगणो मतः।
जलमण्टपयुक्तो विमानशिखरोज्वलः॥
तत्र मण्डपादिसन्निवेशः बलिपीठसमायुक्तमष्टदेवपदान्वितम्।
अन्योचितभवन- ध्वजपीठपुरोभागे पार्श्वयोर्मण्टपा मताः॥
शालादिसन्निवेशश्च देवीनां भवनैर्युक्तं भक्तानां च गृहैर्युतम्।
७२. ५-१५ पूर्वमण्टपसंयुक्तगर्भगेहेन भासुरम्॥
सर्वत्र समसूत्राणां द्वाराणां स्थापनं मतम्।
कवाटयुग्मकलनं शुभदं चात्र कीर्तितम्॥
आग्नेयां पाकशाला स्यात्कूपचत्वरसंयुता।

नैऋत्यां वाहनस्थानं वायव्यां वस्त्रगेहकम् ॥
ऐशान्यां धान्यभवनं मध्यस्थाने महागृहम् ।
कल्पनं मण्डपानां वा तन्मध्ये सालकक्रमात् ॥
हस्तिशालावाजिशालागोशालाभिस्समन्वितम् ।
स्नानालङ्करणस्थानं विहारस्थानकानि च ॥
आस्थानमण्टपो वापि चतुःस्तम्भादिभूषितः ।
डोलाशयनशाला च गर्भगेहान्तरे मता ॥
प्रदक्षिणतलस्थानं सेवाप्राप्तिस्थलानि च ।
सव्ये वा पुरतो भागे वाहनारोहमण्डपः ॥
दक्षिणे मित्रभागे वा भूधरे वा पुरःस्थले ।
मुखवीथ्यां माठवीथ्यां वाहनारोहणस्थलम् ॥
नानाशालासमायुक्तं नानाकल्पनभूषितम् ।
नानागोपानसीयुक्तं नानागोपुरकल्पनम् ॥
सचित्रशिखरैं रम्यं दण्डकल्पं प्रकल्पयेत् ।
न मण्डलस्थानयुतं न न्यूनं नापि चाधिकम् ॥
दोषहीनं गुणोपेतं कल्पयेच्छिल्पवित्तमः ॥

प्रासादे गर्भगृहनिवेश–लक्षणम्

गर्भगृह–लक्षणम् ७३, १–२

हरेर्हरस्य धातुर्वा तद्देवीनामनेकधा ।
आधारासनसंयुक्तं स्थानं गर्भगृहं मतम् ॥
ससनेत्रं समद्वारं द्वारपञ्चकमायुतम् ।
द्वारत्रयसमायुक्तं आन्यमाहुर्मनीषिणः ॥

तस्य मानम् ७३, ३–६

द्वारपालान्वितं तस्य पार्श्वस्थानं प्रकल्पयेत् ।
दण्डद्वयव्यासमानमथवा हीनमानकम् ॥
तन्मानद्विगुणं वापि तन्मानत्रिगुणं तु वा ।
गर्भगेहस्य दैर्घ्यन्तु कल्पयेच्छिल्पवित्तमः ॥
अन्तःप्रदक्षिणोपेतमथवा तेन हीनकम् ।
पार्श्वयोर्वा पृष्ठभागे गोमुखस्थानकं मतम् ॥
द्विदण्डं वा त्रिदण्डं वा कुड्योत्सेधमथाधिकम् ।
द्वारान्तरे वेदिका वा क्षुद्रदेहल्ययापि वा ॥

तत्रान्यनिवेशाः तत्रदेवकार्यञ्च ७३, ७–१२

नानापौगसमायुक्ता मुखतोरणमण्डिता ।
देवस्थानं वेदिकाख्यं तदधिष्ठानकं मतम् ॥
तस्मान्निम्नक्रमेणात्र पूर्वभागःप्रकीर्तितः ।
प्रतिद्वारवर्तं द्वारपालस्थानमथापि वा ॥
अन्तर्निम्नं बहिःपृष्ठे कूर्माकारमथापि वा ।

नानाधिष्ठानोपपीठसंयुतं मूलभूमिकम् ॥
गर्भन्यासेन संयुक्तं यन्त्रपट्टेन चान्वितम् ।
सर्वेषामपि देवानां देवीनामेवमाचरेत् ॥
नानाङ्गणविभक्ताङ्गबहिरङ्गणकल्पितम् ।
तत्र स्थाप्यं शुभे काले देवानां बेरजालकम् ॥
नयनोन्मीलनं प्रायश्चात्र कार्यमुदाहृतम् ।
कर्पूरचन्दनरसैः सेचयेद्वासयेदपि ॥

तद्द्विविधं तत्र पार्श्वमण्डपादीनि च ७३. १३-१६

दैवब्राह्मविभेदेन तत्स्थानं द्विविधं मतम् ।
तत्र पूर्वस्थले भद्रमण्डपं कारयेन्नृपः ।
तत्पूर्वमण्टपं वापि प्रभाष्टमुखकेलिकम् ।
चतुःस्तम्भसमेतं वा स्तम्भाष्टकसमुज्ज्वलम् ॥
षोडशस्तम्भयुक्तं वा महती शालका मता ।
चित्रस्तम्भसमोपेता बलभीतोरणोज्ज्वला ॥
गर्भगेहमुखद्वारयुक्तकल्पनमुत्तमम् ।
जङ्गमास्थानवाहादिमण्टपादीन्प्रकल्पयेत् ॥
संयुक्ता वा वियुक्ता वा द्वारान्ते स्तम्भपार्श्वका ।
दीपदेव्यस्स्थापनीया नानालङ्कारभूषिताः ॥
अथवा दीपकीलादींस्तोरणे विन्यसेत्क्रमात् ।
स्तम्भपञ्जरयुक्तं वा क्षुद्रद्वारयुतं क्वचित् ॥
दण्डं यवनिकाक्रान्तं डोलास्थानं च कल्पयेत् ।
मुखवेदीसमायुक्तं नैवेद्यासनसंयुतम् ॥
युक्त्या प्रकल्पयेद् गर्भगेहमेवं प्रमाणवित् ।

द्वितीयः पटलः

विमान-वास्तु

विमान-लक्षणम्

वि० वा०
७५. १-२०

सर्वेषामपि देवानां देवीनामपि सेविनाम्
गर्भगेहस्य मौलौ यत्कल्पनं रक्षणार्थकम् ॥
तद्विमानमिति प्राहुश्शिल्पशास्त्रविशारदाः ।
प्रतिलोमक्रियां तत्र स्थापयेच्छिल्पकोविदः ॥
तत्कल्पनकलं(समं) कृत्स्नं विमानाधिष्ठतं मतम् ।
मण्डलञ्चतुरश्रं वा व्यासाधिक्यं क्वचिन्मतम् ॥
गजपृष्ठाकारवद्वा चापाकारं क्वचिन्मतम् ।
आधारमानद्विगुणं त्रिगुणं वा चतुर्गुणम् ॥
औन्नत्यं कल्पयेत्तस्य मुखवर्धनसंयुतम् ।
अधिष्ठानस्तम्भकर्णप्रस्तराख्यविभागभाक् ॥
चतुर्भागौन्नत्यकल्प्यं पूरयेत्खण्डनक्रमात् ।
शैलं सौधं लौहमयं विमानं दृढसन्धिकम् ॥
तक्षयेद्वर्धयेन्मानक्रमतष्टङ्कभेदनैः ।
चतुर्भागं नयेद् भूमौ पादुका तत्प्रमाणका ॥
एकेन कम्पनिर्माणमेकहस्तद्विहस्तकम् ।
ऊर्ध्वस्तम्भप्रमाणन्तु कल्पनान्तरभेदतः ॥
उपपीठं कल्पयेद्वा प्रान्तपट्टिकया युतम् ।
द्वाभ्यामेकेन वा तत्र उपानत्स्थानमीरितम् ॥
चतुर्भागेन पद्मन्तु मुखपत्रसमन्वितम् ।
कम्पमेकेन कर्तव्यं पार्श्वनेत्रं द्विभागिकम् ॥
पञ्चभागेन कुमुदमेकेनोर्ध्वतलं मतम् ॥
द्विभागेन महापट्टमग्रपट्टं त्रिभागतः ॥
वेदिका नागबन्धश्च पादश्च कमलं घटः ।
पञ्चभागश्च षड्भास्सप्तभागोऽथवा भवेत् ॥
फलकाबोधिकाभागो द्विभागश्च कपोतकः ।
प्रस्तरश्चाष्टभागेन कथितो बहुवक्त्रकः ॥
ग्रीवा तु दशभागेन चतुरश्राकृतिर्भवेत् ।
मण्डलाकृतिरग्रा तु पट्टिका च द्विभागिका ॥

नानामुखसमोपेतं मौलिभागयुतन्तु वा ।
स्थूपिप्रकल्पनं तत्र लोहजं दृढसन्धिकम् ॥
प्रस्तरान्ते मध्यभागे त्रिमूर्तिस्थानकैर्युतम् ।
पृथग्वेरस्थलं वापि पौषस्थानमथापि वा ॥
देवानामापि देवीनां दासनां गर्भगेहके ।
कलिङ्गं द्राविडं शौरसेनिकं कौसलन्तथा ॥
विमानकल्पनं कार्यं कुम्भपञ्जरसंयुतम् ।
बोधिकाजालकैर्युक्तं द्वारपालाश्रितन्तु वा ॥
रन्ध्रहीनं मध्यकल्पमवाग्वक्त्रादिवर्जितम् ।
देवरूपसमोपेतं कल्पयेच्चित्रभूषितम् ॥
कर्णकूटक्रियोपेतं कीलकुम्भयुतं क्वचित् ।
सौवर्णं राजतं ताम्रं कवचञ्च क्वचिन्मतम् ॥

विमान-प्रासाद-निवेशः

विमान-प्रासादानां देवताः ४९. १०४-१०७॥

कीर्तितानि विमानानि यान्येव सुरवर्त्मनि ।
तान्येव स्थावरत्वेत प्रासादा इति विश्रुताः ।
महेश्वरस्य कैलासो विष्णोस्तु गरुडाभिधः ॥
कार्यः प्रजापतेः पद्मो गणनाथस्य च द्विपः ।
न खल्वेते चान्यदेवानां विधातुमुचिताः स्मृताः ॥
यस्तु त्रिविष्टपः स स्यात् सर्वदेवनिकेतनः ।
अस्मात् तु येऽन्ये प्रासादाः स्मृतास्तेऽनेकरूपिणः ॥
सर्वेषामेव देवानामभेदेन भवन्ति ते ।

तेषु जगत्यादि-निवेशः ४९. १०८-११७॥

जगत्यां विस्तरः कार्यः प्रासादोच्छ्रयसंमितः ॥
गर्भार्धेनोच्छ्रयस्तस्याः शुभदः परिकीर्तितः ।
मण्डपस्य षडंशार्धो(?) पञ्चमांशादथ स्मृतः ॥
कर्णप्रासादकाः कार्याः प्रासादस्य त्रिभागतः ।
पूर्वापरमुखाः कार्या एते याम्योत्तराननाः ॥
ऐन्द्रे याम्ये वारुणे च कौबेरे च यथाक्रमम् ।
दिग्भागेषु चतुर्ष्वेषु वलभीं विनिवेशयेत् ॥
गर्भविस्तारविस्तीर्णां द्वौ त्रिभागौ मुखायताम् ।
इति वाह्यपरीवारे जङ्घा प्रासादमानतः ॥
तिर्यगायतमारोप्य सूत्रं गर्भेण मण्डपे ।
(गुरुकक्षोऽथ?) कर्तव्या गवाक्षस्तम्भसंयुता ॥
प्रासादविस्तरात् कार्यो द्विगुणो मण्डपः सदा ।
मण्डपस्यं(स?स्य) विस्तारा(द्)जगती द्विगुणा वहिः ॥

कर्णप्रासादकाः कार्याः प्रासादस्यार्धतोऽपिवा ।
तेषामध्यर्धतः कुर्याद् वलभीनां निवेशनम् ॥
अनेन क्रमयोगेन वाह्याद् बाह्यं सुसंवृतम् ।
य(दा?था)हि शोभते राजा केयूराङ्गदकुण्डलैः ॥
तथा प्रासादराजोऽयं शोभते भूषणैर्निजैः ।
ध्वास्याहास्यातिसौम्य(?)श्रीकीर्तिविजयावहः ॥
अनेन विधिना न्यस्तः प्रासादः स्यात् सदा नृणाम् ।

देवपरीवारस्थापनञ्च
४९. ११८–१२४॥

आदित्यं पूर्वतो न्यस्येत् कुमारं पूर्वदक्षिणे ॥
दक्षिणे मातृदेव(नै?वां)स्तु गजास्यं दक्षिणोपरि ।
विन्यसेद् वारुणे गौरीं वायव्येऽपि च चण्डिकाम् ॥
विष्णुं कुबेरदिग्भागे तथैशान्यां महेश्वरम् ।
अन्येषामपि देवानां कथ्यते तु क्रमोऽधुना ॥
तत्रैशान्यां दिशि न्यस्येदीशानं लोकनायकम् ।
दानवानां निहन्तारं पूर्वस्यामपि वासवम् ॥
वैश्वानरं तथाग्नेय्यां धर्मराजं च दक्षिणे ।
नैरृत्यां निरृतिं न्यस्येत् प्रतीच्यां तु प्रचेतसम् ॥
वायुं वायव्यदिग्भागे कुबेरमपि चोत्तरे ।
अष्टौ ह्येते महात्मानो लोकपालाः प्रकीर्तिताः ॥
पालयन्ति जगत् सर्वं स्वस्वस्थाने प्रतिष्ठिताः ।
पुर(कर्कट?कर्वट)दुर्गेषु ग्रामेषु नगरेषु च ॥
क्रमेणानेन विन्यस्ताः स्युः प्रजानां सुखावहाः ।

विमान-लक्षणम्
मा०
१८, १–४४

विमानलक्षणं चैव संक्षेपाद्वक्ष्यतेऽधुना ।
तैतिलानां द्विजातीनां वर्णानां वासयोग्यकमम् ॥
एकभूमिविमानादिरविभूम्यवसानकम् ।
भक्तिसंख्या (ख्यां) तदाकारं स्थू(स्तू) पिकाद्यैश् (दि) च लक्षणम् ॥
लुपमानक्रियं सर्वं स्तूपिकास्थानकं क्रमात् ।
खानयेद्धतलं श्रेष्ठं पुरुषाञ्जलिमात्रकम् ॥
जलान्तं वा शिलान्तं वा पूरयेद्वालुकैर्जलैः ।
हस्तिपादाकृतिं (ति) दारुस्तम्भेन (च) प्रहारयेत् ॥
एवं दृढकरं(कृतं) चोर्ध्वे यथाशास्त्रं(हर्म्यं) तु कारयेत् ।
एकभूमिविमाने तु चोक्तवस्करसंग्रहम् ॥
एकभक्त्या विभक्त्या वा त्रिचतुष्पञ्च-भागिकम् ।
षड्भागं षड्विधं प्रोक्तं क्षुद्रमेकतलं भवेत् ॥
पञ्चषट्सप्तभागं स्यान्मध्यममेकतलं भवेत् ।
षट्सप्ताष्टविभागं स्यात् श्रेष्ठमेकतलं भवेत् ॥

पञ्चषट्सप्तभक्त्या च क्षुद्रं च द्वितलं भवेत्।
षट्सप्ताष्टभक्त्या च मध्यमं द्वितलेन (लमेव) च ॥
सप्ताष्टनवभागं स्यादुत्तमं द्वितलं न्यसेत्।
सप्ताष्टभक्तिकं कुर्यात्क्षुद्रं च त्रितलं भवेत्॥
नन्दपङ्क्त्यंश (शं) तेनैव मध्यमं त्रितलं भवेत्।
एकपङ्क्त्यर्कभागेन चोत्तमं त्रितलं भवेत्॥
अष्टनन्ददशांशं स्यात्क्षुद्रमाने चतुस्तले ॥
नन्दपङ्क्तिरुद्रभागं स्यान्मध्यमे च चतुस्तले ॥
पंङ्क्तिरे (क्त्ये) कादशार्कं भागं श्रेष्ठे चतुस्तले।
नन्दपङ्क्त्येकादशार्कं भागं सप्तविशालकम् ॥
कुर्यात्तु शिल्पविद्भिः क्षुद्रपञ्चतले न्यसेत्।
पङ्क्त्येकपङ्क्तिर(ङ्क्त्यै)कांशः(श)द्वा(त्रयोदशांशे विशालके ॥
एतत्तु मध्यमं पञ्चतलं हर्म्ये (ए) व कारयेत्॥
ईशद्वादशकैकार्कं मनुभागं तथैव च।
एतद्भागविशाले तु श्रेष्ठं पञ्चतलं भवेत्।
अर्कसैकार्क-भागं तु मनुपञ्चा (ञ्च) दशांशकम् ॥
एतद्वै पूषके कुर्यात्क्षुद्रषट्तलहर्म्यकम्।
सैकार्कांशं मुनिं चांशं तिथिषोडशभागिकम् ॥
षट्तलं मध्यमं प्रोक्तं कुर्याद्धर्म्यविशालकम्।
त्रिचतुः(तुष्) पञ्चषट्सप्तैकाधिकं दशभागिकम् ॥
श्रेष्ठं षट्तलमित्युक्तं यथा कुर्याद्विचक्षणः।
चतुर्दशांशंकपञ्चदशांशं षोडशांशकम् ॥
सप्तदशाष्टपङ्क्त्यंशं क्षुद्रसप्ततलं तु वा।
पञ्चा (ञ्च) दशांशकं चैव षोडशांशकमेव वा ॥
सप्ता (प्त) दशांशकं भागं चाष्ट पङ्क्त्यंश भागिकम्।
एतन्मध्यममाने तु कुर्यात् सप्तभूमिके ॥
विस्ताराष्टद्विभागं च तत्सप्तदशभागिकम्।
तदष्टादशभागं स्यान्नन्दपङ्क्त्यंशमेव वा ॥
श्रेष्ठं सप्ततलं प्रोक्तं कुर्यात्तत्र विचक्षणः।
सप्ता(प्त)दशांशकं चैव विस्तारा(रम)ष्टादशांशकम् ॥
नवपङ्क्त्यशकं चैव विशाले द्विदशांशकम्।
क्षुद्रमष्टतलं ह्येवं रम्यं कुर्यात्तु भागतः ॥
नवमेव द्विभागं स्यान्नन्दपङ्क्त्यंशकं तथा।
विंशत्यां(त्यं)शक(शमेक)माधिक्यं भागं हर्म्यविशालके ॥
मध्यमाष्टतलं कुर्याद्भागमानविमानके।

नवाधिकदशांशं स्याद्विंशतिश्चैकविंशतिः ॥
द्वाविंशतिश्च भागं च श्रेष्ठमष्टतलं तथा।
विंशत्यंशं विशाले तु चैक (सैकं) हस्तं तथैव च ॥
द्वाविंशतिं च भागं च त्रयोविंशतिभागिकम्।
क्षुद्रं नवतलं ह्येवं कुर्याद्भागं विमानके॥
एकविंशतिभागं च तद् द्वाविंशतिभागिकम्।
त्रयोविंशतिभागं स्याच्चतुर्विन्शतिभागिकम्॥
मध्यमं (ध्यं) नवतलं कुर्यान्मध्यमे तद्विशालके।
द्वाविंशतिं(तिश)च भागं स्यात्त्रयोविंशतिभागिकम्॥
चतुर्विन्शतिकं चे (चापि) पञ्चविंशतिकांशकम्।
श्रेष्ठं नवतलं प्रोक्तं कुर्यात्तु शिल्पवित्तमः॥
त्रयोविंशतिभागं स्याच्चतुर्विन्शतिभागिकम्।
पञ्चविंशतिभागं च षड्विंशतिभागिकम्॥
क्षुद्रं दशतलं कुर्याद्भागं समय (मध्य) विशालके।
चतुर्विंशतिकं चैव पञ्चविंशतिकं तथा॥
षड्विंशतिञ्च भागं च सप्तविंशतिभागिकम्।
मध्यमं(ध्यं) दशतलं कुर्याद्विमानस्य विशालकम् (के)॥
पञ्चविंशतिभागं स्यात्षड्विंशतिभागिकम्।
सप्तविंशतिभागं स्यादष्टाविंशतिभागिकम्॥
श्रेष्ठं पङ्क्तितलं कुर्याद्भागं हर्म्यविशालके।
षड्विंशतिश्च भागं स्यात्सप्तविंशतिभागिकम्॥
अष्टाविंशतिभागं स्यान्नवविंशतिभागिकम्।
क्षुद्रमेकादशतलं भागमानविशालके॥
सप्तविंशतिभागं च अ(तु चा) ष्टाविंशतिभागिकम्।
नवविंशतिकं चैव त्रिंशद्भागविशालकम्॥
एकादशतलं प्रोक्तं मध्यमं तद्विमानके।
अष्टाविंशतिभागं स्यान्नवविंशतिभागिकम्॥
तत्त्रिंशतिकं चैव चैकत्रिंशांशकं तथा।
एकादशतलं श्रेष्ठं हर्म्यं मूलविशालके॥
नवविंशतिभागं स्यात् त्रिंशदंशविशालके (कम)।
एकत्रिंशद्विभागं स्याद् द्वात्रिंशां (शदं) शकं भवेत्॥
क्षुद्रद्वादशभूमिः स्याद्भागमेवं प्रकल्पयेत्।
विशाले त्रिंशदंशं स्यादेकत्रिंशं च भागिकम्॥
द्वात्रिंशद्विभागं चैव त्रयस्त्रिंशं द्विभागिकम्।
मध्यमं द्वादशभूमिं(स्या) [च] भागमानं विशालके॥

द्वात्रिंशतिभागं स्यात् त्रयस्त्रिंशच्च भागिकम् ।
चतुस्त्रिंशतिभागं च पञ्चत्रिंशद्विशालके ॥
श्रेष्ठद्वादशभूम्याश्च भागं कुर्याद्विचक्षणः ।
कर्णपादस्य बाह्ये तु मध्यपादस्य मध्यमे ॥

विमानेषु भूमिलम्ब-विधानं यथा

मय०
११. १–२७

भूमिलम्बविधानं तु वक्ष्ये संक्षेपतः क्रमात् ।
चतुरश्रमायताश्रं वर्तुलं च तदायतम् ॥
अष्टाश्रं च षडश्रं च द्व्यश्रवृत्तं तथैव च ।
एतद् विन्यासभेदं स्यात् क्षयवृद्धिविधानतः ॥
भूमिलम्भमिति प्रोक्तं त्रिचतुर्हस्तमानतः ।
द्विद्विहस्तविवृद्ध्यैकं भूमेर्मानं चतुष्टयम् ॥
पञ्चषड्ढस्तमारभ्य द्विद्विहस्तविवर्धनात् ।
द्वितले तु चतुर्मान रुद्रभानुकरान्तकम् ॥
सप्ताष्टहस्तमारभ्य द्विद्विहस्तविवर्धनात् ।
पञ्चदशरविकरान्तं त्रितले पञ्चमानकम् ॥
नवपङ्क्तिकराद् यावत् पक्षशोडशहस्तकम् ।
चतुष्पञ्चतलं प्रोक्तं चतुर्मानं सनातनम् ॥
एकहस्तं द्विहस्तं वा क्षुद्रमेकतलं स्मृतम् ।
युग्मायुग्मकरैर्मानैर्हस्ताधोनसमन्वितैः ॥
केचिद् वदन्ति देवानां मानुषाणां विमानके ।
विस्तारे सप्त षट पञ्च चतुस्त्र्यंशेऽधिकं त्रिभिः ॥
शान्तिकं पौष्टिकं जयदमद्भुतं सार्वकामिकम् ।
उच्छ्रायं द्विगुणं पादार्धाधिकं चापि सम्मतम् ॥
पञ्चदशकरव्यासाद्धीनं क्षुद्रविमानकम् ।
सप्ताष्टाधिकपङ्क्त्यादि द्विद्विहस्तविवर्धनात् ॥
आसप्ततेश्चतुर्भूम्यादीनि त्रीणि मतानि च ।
सप्तविंशतिभेदानि द्वादशान्तान्यनुक्रमात् ॥
त्रिचतुर्विंशतिरत्नेर्यावच्छतकरान्तकम् ।
त्रित्रिहस्तविवृद्ध्या तु त्रिनवोत्सेधमिष्यते ॥
एवमुत्कृष्टमानेषु श्रेष्ठमध्याधमं भवेत् ।
त्रिचतुष्पङ्क्तिहस्तादि द्विद्विहस्तविवर्धनात् ॥
पञ्चषष्टिहस्तान्तं सङ्ख्यया पूर्वसंस्कृतिः ।
चतुस्तलविमानादि द्वादशान्तं विधीयते ॥
सप्ताष्टपङ्क्तेरारभ्य त्रित्रिहस्तविवर्धनात् ।

पञ्चषण्णवतिर्यावदुच्चं प्रागिव सङ्ख्यया ॥
श्रेष्ठमध्यकनिष्ठं स्यादेवं मध्यकसेषु च ।
नवपङ्क्तिकरात् पञ्चषट्पञ्चाशत्करान्तकम् ॥
द्विद्विहस्तविवृद्ध्या तु चतुर्विंशतिसंख्यया ।
पञ्चादिद्वादशान्तानां हर्म्याणां विपुलं क्रमात् ॥
सप्ताष्टनवभूमानां धाम्नामुक्तप्रमाणतः ।
युञ्ज्याद् द्वादशभूम्यन्तं विमानं मानविद्वरः ॥
द्विः षट् त्रयोदश चमन्तषोडशचमं यथाक्रमम् ।
षट् षट् षट् सप्तपञ्चाशद्धस्तव्यासैः शिवोदितम् ॥
विस्तारं स्तम्भतो बाह्ये जन्मात् स्थूप्यन्तमुन्नतम् ।
केचिदाशिखरान्तं तु प्रवदन्ति तदुन्नतम् ॥
महतामुच्छ्रयो हस्तैरूद्देशः समुदाहृतः ।
तत्तद्व्यासे तु सप्तांशे निर्दैशोच्चं त्रियंशकैः ॥
विस्तारद्विगुणोत्सेधं युक्त्याल्पेषु प्रयोजयेत् ।
देवानां सार्वभौमानामाद्वादश तलं मतम् ॥
रक्षोगन्धर्वयक्षाणामेकादशशतलं मतम्
विप्राणां नवभौमं स्याद् दशभौममथापि वा ।
युवराजस्य राज्ञश्च पञ्चमस्यैव सप्तभूः ॥
तदाद्येकादशतलं षण्णां वै चक्रवर्तिनाम् ।
त्रिभूमं चतुर्भूमं वणिजां शूद्रजन्मनाम् ॥
राज्ञां पञ्चतलं वापि मतं पट्टभृतां तु तत् ।
शतहस्तसमुत्सेधात् सप्तत्या रत्निविस्तरात् ॥
नेष्यतेऽधिकं मानं तु सर्वथा तद्विचक्षणैः ॥
क्षुद्राल्पमध्यमवरादिविमानकानां
व्यामिश्रहस्तकयुजां विपुलोच्चभेदम् ।
युक्त्यायथोदितमजाद्यमरेश्वराणां
नृणां तथैव कथितं हि मया पुराणैः ॥

गोपुर-लक्षणम्

एकादिनवभौम-गोपुर-विधानम्—

वि० वा० २८. १-२६

देवालयानां भूनेतुर्भवनानां पुरामपि ।
ग्रामाणामपि दुर्गाणां शालानामपि सद्मनाम् ॥
मुखद्वारेषु कर्तव्यं गोपुरं शिल्पिभिः क्रमात् ।
शैलीमानं तु संयोज्यमिह स्थपतिभिर्मतम् ॥
अनुलोमादिमानं वा मार्गविस्तारमानकम् ।
कल्पनावर्गमानं वा गोपुरारम्भकर्मणि ॥

निश्चित्य मतिमाञ्छिल्पी भूमिलम्बनमाचरेत् ।
त्रिभागसादिमध्यान्तं विभज्यायाममानितम् ॥
भूतलं भूमिलम्बञ्च भूनिर्माणं समाचरेत् ।
मुखे मध्ये पृष्ठतले तद्वग वाऽधितक्षणम् ॥
रेखादिभिः समायुक्तमथवा बहुचित्रकम् ।
मध्यालिन्दसमोपेतमथवाऽङ्गलहीनकम् ।
एकभौमयुतं कार्यं क्वचिद् ग्रामादिषु स्थिरम् ॥
साधिष्ठानस्तम्भयुतं तदेवोन्नतकायकम् ।
वेदिकोपरिजालाढ्यं शिखरत्रयभासुरम् ।
त्रितलेन समायुक्तं कर्णनासादिमण्डितम् ॥
त्रितलं गोपुरं प्रोक्तं शिल्पविद्भिः पुरातनैः ।
ग्रामे देवालये स्थाप्यं ग्रामद्वारे विशेषतः ॥
मठमण्टपमुख्यस्य कल्पनस्य पुरःस्थले ।
ससोपानं चतुर्थादिभौमकल्पनशोभितम् ॥
बृहत्तलमुखोपेतं पञ्चाभि शिखरैर्युतम् ।
मध्याधिष्ठानसंयुक्तमग्रपट्टादिभूषितम् ॥
अलिन्दद्वयभागयान्तं सपादं वा विपादकम् ।
देवीनां भवनद्वारे देवानां च पुरामपि ॥
भूपालभवनद्वारे दुर्गाणां च मुखस्थले ।
ग्रामाणां च मुखद्वारे कल्पनीयं विशेषतः ॥
बहुतोरणसंयुक्तं तलदेवादिभूषितम् ।
तलस्तम्भयुतं वापि कल्पयेत्पञ्चभूमिकम् ॥
गोपुरं शिल्पविप्राज्ञो यथाशोभं यथाबलम् ।
तदेवात्युन्नततलं वैशाल्यादिसमन्वितम् ॥
अलिन्दस्तम्भसंयुक्तं तलस्तम्भैश्च धारितम् ।
द्वारद्वयं द्वारपट्टद्वयेन परिशोभितम् ॥
मध्याङ्गणद्वययुतं देहलीवेदिकायुतम् ।
तत्र सोपानपङ्क्तिर्वा चित्रं वा बहुरूपकम् ॥
अधोभागे द्वारयुग्मं किन्नरीयुग्मभासुरम् ।
मध्यभागे लतारूपं सगुच्छं सममेदुरम् ॥
मौलिभागे कुम्भगुच्छसरोजमुकुलान्वितम् ।
तिर्यक्पट्टिकयुग्मेषु मध्ये वा पार्श्वयोस्तथा ॥
शतपत्रं पङ्कजं वा हंसाकृतिरथापि वा ।
युक्तया मनोरहं स्थाप्यं सौवर्णं राजतं तु वा ॥
द्वारपट्टिकभागेषु किङ्किणीरेखिका मता ।

द्विद्विभागविभक्तेषु तलेषु बहुचित्रकम् ॥
देवरूपं स्थापनीयं नानाङ्गणमहाप्रपे ।
कूटे वा क्षुद्रवलभीभागे वा पुण्यदर्शकम् ॥
तत्रोपरि विमानादिशिखराणि च कल्पयेत् ।
कल्पनं चित्रकं वापि स्थानकं शालकं तु वा ॥
समञ्च विषमैर्हीनं युक्त्या मानेन तद्बुधः ।
योजयेदिष्टिकाभिश्च सुधाभिरपि सिद्धये ॥
पीतादिवर्णकलनं योजयेद्वा विचक्षणः ।
द्वादशाङ्गुलकं वापि चतुर्विंशतिकं तु वा ॥
पक्षयोरुभयोः पङ्क्तिं कल्पयेत्सुधयापि वा ।
मध्यद्वारतलं युक्त्या कारयेत्तलमानकम् ॥
प्रतिभौममिदं कार्यं कल्पनद्वयपङ्क्तिकम् ।
अश्वपादसमायुक्तं गजपादयुतं तु वा ॥
सकवाटं जलस्रावयोग्यं सर्वतलं मतम् ।
प्रकल्पयेद् दृढं शिल्पी यथाशोभं यथाबलम् ॥
सप्तभौमं गोपुरं वा नवभौमयुतं तु वा ।
देवालये पुरद्वारे क्वचिदन्यत्र वा बुधः ।
विशालमार्गमिलितं स्थापयेत्क्षेमसिद्धये ॥

प्राकार–लक्षणम्

वि० वा० ७६. १–१३

प्राकारकल्पनं कल्परचकं प्रथमं मतम् ।
सैन्यवेशो द्वितीयन्तु तृतीयन्त्वर्गलादिकम् ॥
पृथक्कल्पक्रियोपेतं कार्याय परिकल्पते ।
दुर्गेषु राजधान्याञ्च नगरेषु विशेषतः ॥
दैवं भौपमिति प्रोक्तं द्विविधं तत्प्रकल्पयेत् ।
स्थलकल्पनयोग्यं तत्कल्पयेद् दृढसन्धिकम् ॥
प्रतिलोमानुलोमाभ्यां मानं तस्य द्विधा भवेत् ।
पादपादप्रमाणेन वर्धयेन्नृपमन्दिरे ॥
दैवेऽधिकं प्रमाणं वा तत्समं वा क्वचिन्मतम् ।
दुर्गेषु कूपसंयुक्तं त्रुटनस्थानकान्वितम् ॥
क्षुद्रमण्डलयुक्तं वा स्थलमानवशान्नयेत् ।
मध्याङ्गुलिसमायुक्तं पिञ्छवर्धनसंयुतम् ॥
मस्तकेष्वपि वेष्टाकं पौषं नलिकसंयुतम् ॥
एवं भूपालभवनमन्दिरावरणस्थलम् ॥
आदौ वृद्धियुतं प्रायः क्रमाद्धीनं प्रकल्पयेत् ।

प्राकारकल्पनेष्वेवं दैविकेषु तथा मतम् ॥
चतुरश्रं व्यासहीनं दैविकं संप्रकल्पयेत् ।
मण्डलं वरणस्थानं शुभदं नृपमन्दिरे ॥
पर्वते वा भूमिभागे कल्पने विविधे मतम् ॥
समद्वारयुतं वापि विषमस्थानवेशकम् ॥
समसूत्रप्रमाणेन पादहीनादिभेदतः ।
हरेर्हरस्य धातुर्वा तत्तच्चिह्नं प्रयोजयेत् ॥
कोणेषु मध्यतालेषु पार्श्वे प्राकारकल्पने ।
सुधालेपितकैर्न्नयोजनैस्तक्षणैरपि ॥
मिथोबन्धनसंयुक्तं शैलसैष्टिककल्पनम् ।
भूमिलम्बनसंयुक्तपार्श्वोपान्ततलक्रियम् ।
स्थापयेन्मतिमान्युक्त्या रक्षाप्राकारकल्पनम् ॥
मान० बल्यर्थं परिवारार्थं शोभार्थं रक्षणार्थकं ॥
पञ्चप्राकारहर्म्याणामधुना वक्ष्यते क्रमात् ।
जात्यादिभेदहर्म्याणां तन्मानेन तु विन्यसेत् ॥
जातिप्राकारसर्वेषां हस्तमानेन योजयेत् ।
छन्दा सर्वशालानां प्रासादांशेन मानयेत् ॥
जालीनां जातिसालानां हर्म्यतारं विभाजिते ।
तदूर्ध्वे वेदिकादीनां ग्रीवमूर्ध्नि शिखान्तकम् ॥
समकन्धरवृद्धिः स्यात्पञ्चसालावसानकम् ।
छन्दादिपञ्चसालां च छन्दाद्यंशेन मानयेत् ॥
जीर्णप्रसादविस्तारे विन्यसेत्सकलं पदम् ।
आदिशालां ततः कुर्यादन्तर्मण्डलमीरितम् ॥
द्वितीयमन्तहारा च मध्यहारा तृतीयकम् ।
प्राकारं तच्चतुर्थं च कथितं तन्मयादिकम् ॥
ततः पञ्चमशालां च महामर्यादामीरितम् ।
पञ्चशालमिति प्रोक्तं तन्त्रविद्भिः पुरातनैः ॥
तत्पीठपदविन्यासश्चादिशालविशालके ।
तथा द्वितीयशाले तु स्थण्डिलपदं विन्यसेत् ॥
तन्तन्कुर्यात्तु शालायां तृतीये चोभयचण्डितम् ।
सुसंहितपदं मध्ये मर्यादाया विशालके ॥
महामर्यादाविस्तारे पदमीश्वरकान्तकम् ।
एवं तु जातिशालां च कुर्याद्धर्म्यवलात्सुधीः ॥
पेचकं मूलहर्म्ये तु छन्दादीनां प्रवक्ष्यते ।
प्रथमं तु महापीठं द्वितीयं चण्डितं पदम् ॥

तृतीयं भद्रसंयुक्तं ततः शालाबहिस्तथा ।
चतुर्थं सुप्रतीकान्तं पञ्चमं चन्द्रकान्तकम् ॥
एतच्छन्दं प्रकर्तव्यं विकल्पं तदिहोच्यते ।
छन्दप्राकारविस्तारे सार्धार्धेन कराधिकम् ॥
प्रथमात्पञ्चमान्तं स्यात्सार्धं युग्मकरान्तकम् ।
एवं विकल्पमानं स्यात्पञ्चशाला प्रकीर्तिताः ॥

विमान-वैशिष्ट्ये—

स्तूपिका
शि० र०
३६. १–६

स्तूपिकाश्चापि देवानामयुग्माश्चैव शोभनाः ।
युग्मा एव मनुष्याणां प्रशस्ताःसर्वधामसु ॥
शिखरे स्तूपिकास्थाने कार्या मूर्ध्नेष्टका तथा ।
तत आच्छाद्य शिखरं द्रव्यैः कार्तस्वरादिभिः ॥
स्तूपीदण्डं समाच्छाद्य कलशं चैव विन्यसेत् ।
पञ्चताराद् सपादं स्याद् स्तूपीकुम्भविशालकम् ॥
विस्तारेण सपादं वा सार्धं वा स्तूपिकोच्छ्रयम् ।
पङ्कजं तोरणस्रक् च चेपणं पत्रचेपणम् ॥
धृक् च कर्म्पं च पद्मं च वेत्रत्रितयकुड्मलौ ।
एवं तस्यैवावयवं यथाशोभं समाचरेत् ॥
चतुरष्टद्विरष्टाश्रं सधारं वर्तुलं तु वा ।
स्यादाकृतिः सुरोर्वीशविप्राणां च विशां मतम् ॥

स्तूपिकीलम्
(मूर्ध्नेष्टका)
मा० १८. ७१–८२

स्तूपिकीलायतं तारं लक्षणं वक्ष्यतेऽधुना ।
ऊर्ध्वभूम्या यथा पादं तस्या याम (मं) समं तु वा ॥
गलश्चाध्यकं तुङ्गं वा स्तूपिकीलायतं तथा ।
तद्विष्कम्भ सम(मं) व्यासं स्तूपिकीलस्य मूलके ॥
अथवाङ्गुलभागेन कीलमूलं विशालकम् ।
त्रिचतुर्विंशाङ्गुलं लोहे दारुकीलं तु (व) पूर्ववत् ॥
कीलायामं त्रिभागैकं मूले वेदाश्रमीरितम् ।
मध्ये चाष्टाश्रसंयुक्तं चाग्र(ग्रे) वृत्तावृत्तिस्तथा ॥
पञ्चाङ्गुलाग्रविस्तारं मूलाग्रान्तं क्षयं(य) क्रमात् ।
अथवा शिखराकारं कीलं मध्याकृतिस्तथा ॥
स्तूपिकीलविधृता(स्तृतिः) त्रिगुणा स्याद् बहिश्चरणाद्दैर्घ्यमुक्तम् ।
कीलाधार विस्तृतार्ध(र्धं) तद्घनं तत्कीलमूलमथ तत्र योज्यम् ॥
ताम्रजं चायसं दारु(जं) लमेव् कीलं प्रकल्पयेत् ।
खदिरं खदिरं चैव तिन्त्रिणी चारमेव च ॥
उक्तवद्दारु संगृह्य स्थापतिः स्थापकैः सह ।

तत्काले स्थापयेद्विद्वन् स्तूपिकीलस्य वक्रकम् ॥
ऋजुवक्रं च न भिन्नानि (न्नं च) तक्षणात्तत्त्केण तु ।
स्तूपिकीलमिदं प्रोक्तं तदूर्ध्वोष्टकलक्षणम् ॥
मानं प्रागुक्तवत्कुर्यात् पुंस्त्री चेष्टाकां विदुः ।
मूलाग्रं च समतारं तु चेष्टाका (कं) पुरुष (षं) स्मृतम् ॥
आनुपूर्व्यं कृशं तारं वनिता चेष्टका तथा ।
शिलाहर्म्ये शिलायुक्तं चेष्टकं चेष्टका तथा ॥
पुंविमानञ्च (नेच) पुरुषं वनिता (यां) वनितां क्षिपेत् ।
शिलासंग्रहकाले तु ज्ञापयेत्पुंस्त्रियं तथा ॥

लुपा
१८. ८३–८६

स्तूपि तुङ्गद्वयं वाथ विमानं च (नस्य) वशो (शाद) दयम् ।
एतत्तु शिखरोत्तुङ्गं तदर्धं गलतुङ्गकम् ॥
लुपारूपं शिखरं स्याद्ग्रीवान्तं तलपवासनम् ।
तत्तारादिमृणालान्तं प्रस्तयोक्तवङ्कले (लम्) ? ॥
तदूर्ध्वे दण्डकं कुर्याल्लुपमानं यथाक्रमम् ।
अम्बरं च व्ययं (वियज्) ज्योतिर्गगनं च विहायसि (यश्च) ॥
अनन्तं चान्तरिक्षं च पुष्कलं चाष्टधा लुपाः ।
देवानां हर्म्यके कुर्याद्युक्तमेवं पुरातनैः ॥
मही ज्या कश्यपी क्षौणी चोर्वी गोमावसुन्धरा ।
वसुधा चाष्टधा प्रोक्ता कारयेत् मानुषालये ॥
सर्वेषां देवतायोग्यं नराणां चोक्तयोग्यकम् ।
सुराणां मुक्तमानं यन्मर्त्यैं तन्नेष्य (ष्यं) यत्नतः ॥

प्रासाद-निर्माणे इष्टापूर्तसिद्धिः

एवमेव चतुःश्रृङ्गश्चतुर्द्वारोपशोभितः ।
मेरुर्मेरूपमः कार्यो वाञ्छता शुभमात्मनः ॥
सर्वस्वर्णमयं मेरू यद् दत्वा पुण्यमाप्नुयात् ।
तमिष्टकाशैलमयं कृत्वा तदधिकं भजेत् ॥
जयं लक्ष्मीं यशःकीर्ति सर्वाणीष्टफलानि च ।
करोति सर्वतोभद्रं सर्वतोभद्रकः कृतः ॥
विधाय सर्वतोभद्रं देवानामालयं शुभम् ।
लभते परमं लोकं दिवि स्वच्छन्द-भाषितम् ॥
पुराणां भुपणार्थाय भुक्तिमुक्तिप्रदाः नृणाम् ।
श्रीधरं कारयेद् यस्तु कीर्त्यर्थमपि मानवः ।
इहैव लभते सौख्यमसुरेन्द्रत्वमाप्नुयात् ॥
भोगान भुक्त्वा पुमान् स्वर्गं नीयते चपरे पदे ।

सर्वपापविनिर्मुक्तः शान्तश्च स्यान्न संशयः ॥
प्रासादं ये सुभद्राख्यं कारयन्ति सुलक्षणम् ।
कल्पकोटिसहस्राणि भद्रं तेषां शिवाग्रतः ॥
कुर्याद् य एनं प्रासादमीदृशं सुरसुन्दरम् ।
स गौरिश्चं युगशतं सूर्यलोके महीयते ॥
भक्त्या ये कारयन्त्येनं नन्द्यावर्तमनुत्तमम् ।
विमानं शुभमारूह्य शक्रलोकं व्रजन्ति ते ॥
यः कुर्यात् कारयेद् यस्तु सिद्धार्थं सर्वकामदम् ।
स भवेत् सर्वकामाप्तिः शिवलोके च शाश्वतः ॥
यः शङ्खवर्धनं कुर्यात् स भुनक्ति चिरं महीम् ।
वशगा चास्य सततं भवेल्लक्ष्मी कृताञ्जलिः ॥
त्रैलोक्यभूषणं ब्रूमो वन्दितः त्रिदशैरपि ।
आश्रयं सर्वदेवानां पापस्य च विनाशकम् ॥
त्रैलोक्य-भूषणं कृत्वा त्रिदशानन्दकारकम् ।
कल्पान्तं यावदध्यास्ते पुरुषस्त्रिदशालयम् ॥
पद्माख्यः कारितो येन प्रासादो रतिवल्लभः ।
आत्मा समुद्धृतस्तेन पापपङ्कमहोदधेः ॥
पद्मबाहुः कृतो येन त्रिगर्भः कर्मभूषितः ।
स त्रिनेत्रप्रतापः स्यात् तुरङ्गव्रातनायकः ॥
अथ लक्ष्मीधरं ब्रूमो यं कृत्वा विजयं नरः ।
राज्यमायुष्यपूजाश्च गुणानाप्नोति चैश्वरान् ॥
लक्ष्मीधराख्यं प्रासादं यः कुर्याद् वसुधातले ।
अक्षये स पदे तत्त्वे लीयते नात्र संशयः ॥
रतिदेहमथ ब्रूमः प्रासादं सुमनोरमम् ।
अप्सरोगण-संकीर्णं कामदेवस्य मन्दिरम् ॥
एवं विधं यः कुरुते प्रासादं रतिवल्लभम् ।
सन्तोषयति कन्दर्पं स्याज्जनेषु स पुण्यभाक् ॥
सिद्धिकाममथ ब्रूमो प्रमथैरूपशोभितम् ।
धन-पुत्र-कलत्राणि कृते यत्राप्नुयान्नरः ॥
नन्दिघोषमथ ब्रूमो विपक्षभयनाशनम् ।
य एनं भक्तितः कुर्याद् स भवेदजरामरः ॥
यः करोति सुरानन्दं वरदास्तस्य मातरः ।
सुरास्तस्य ह्यनिस्तार्यमपमृत्युं हरन्ति च ॥
हर्षणः क्रियते यत्र स देशः सुखमेधते ।
क्षेमं गोब्राह्मणानां स्यात् पूर्णकामश्च पार्थिवः ॥

दुर्जयः क्रियते यत्र पुरे नगरेऽथवा ।
न भवेत् तत्र दुर्भिक्षं न च व्याधिकृतं भयम् ॥
ब्रूमस्त्रिकूटं ब्रह्माद्यैः सेवितं त्रिदशैस्त्रिभिः ।
फलं क्रतुसहस्रस्य येन मोक्षं च विन्दति ॥
प्रासादस्यास्य कर्ता च यावच्चन्द्रार्कतारकम् ।
तावदिन्द्र इव स्वर्गे क्रीडत्यप्सरसां गणैः ॥
भुक्त्वा भोगांश्च कैलासे कल्पान्ते यावदीप्सितम् ।
शार्वं पदमवाप्नोति शान्तं ध्रुवमनामयम् ॥
कृत्वा त्रिविष्टपं दिव्यं प्रासादं पुरभूषणम् ।
वसेत् त्रिविष्टपे तावद् यावदाभूतसंप्लवम् ।
तस्यान्ते तु परे तत्वे लयमाप्नोति मानवः
गुणवान् नृपतिर्यद्वद् भूषयत्यखिलां महीम् ।
क्षितिं विभूषयत्येवं प्रासादः क्षितिभूषणः
द्रव्येषु रेणुसंख्या या सुधायामपि यावती ।
तावद्युगसहस्राणि कर्ता शिवपदे वसेत् ।
तदेकेन विमानेन फलमाप्नोति मानवः
निर्मापयन् नरः कश्चिन्मुक्तकोणं महायशाः
संप्राप्नोति महासौख्यं विमुक्तः सर्वपातकैः ।
सर्वद्वन्द्वविनिर्मुक्तः सर्वकिल्विषवर्जितः ।
सर्वपापविनिर्मुक्तो भोगं मोक्षं च विन्दति ॥
इमं दिग्भद्रसंज्ञं यः प्रासादं कारयेत् पुमान् ।
शतक्रतुफलं सोऽपि लभते नात्र संशयः ॥
महाभद्रमिमं योऽत्र कारयेद् भक्तिमान् नरः ।
स स्वर्गे सुरनारीभिः सेव्यते मदनाज्ञया ॥
मलयाद्रिरयं प्रोक्तः प्रासादः शुभलक्षणः ।
य एनं कारयेत् तस्य तुष्यन्ति सकलाः सुराः ॥
वर्षकोटिसहस्राणि स्वर्गलोके महीयते ।
भुक्ति-मुक्ति-प्रदातारं··· ·········· ········ मण्डनम् ॥